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EDITORIAL—SOME HIGHLIGHTS

I. General Economic Scene

State :

Annual Plan : As suggested in the last issue, (Vol. IV page 407), the State Planning Commission has completed the updating of the State's Annual Plan, taking into account the increased cost of projects due to price increases and the various input shortages that have developed and will last through the year—power, steel, cement, fertiliser and oil. There is still the unresolved question of the total cost of the Plan on which agreement between the Union Planning Commission and the State government should be reached. Already 5 months of the year have passed with this uncertainty. The priorities are clear—agriculture, power and the minimum needs including the subsidised distribution of essential goods to the poverty sector. All else will have to take their place in the queue.

Power : June witnessed an erratic power situation in the State. As forecast in the last issue (Vol. IV page 408), in the first week of June, the 60 per cent power cut was slightly relaxed with LT rural industries being given 7 day supply instead of 3 days and L.T. urban and HT non-continuous industries being given daily power and HT industries being subject to a 40 per cent demand cut. However due to the late onset of the South West Monsoon, the storage in the hydro electric reservoirs in Kerala declined sharply (92.9 million cubic feet on June 15, 1974 compared to 138.6 million cubic feet on June 15, 1973), the Sholayar and Pandiar power stations being shut down and the daily supply of 2 million units to this State suspended from June 12. The inter-State agreement between Kerala and Tamil Nadu had provided for a supply of 33 crore units to Tamil Nadu from May 1973 to May 1974 and had been met. Following this there was a 3 month agreement from June-September for a supply from Kerala of 40 million units. This was suspended. Also the delayed monsoon lowered the storage in the State's hydel reservoirs, resulting in their generating only one million units per day. In addition, one of the four Ennore thermal units had to be closed down for repairs, so that Ennore was generating only 140 MW instead of its full 340 MW as pointed out in the last issue (Vol. IV page 407). There was also the recurring problem of coal supply to Ennore and Basin Bridge which require 4,500 tonnes per day but which were receiving only around 2,000 tonnes. Here again the coal mines blame the Railways for sending the wagons to the wrong mine and the railways state that coal is not available at the pit-heads. The government's effort to bring coal by sea has resulted in 7,000-8,000 tonnes being unloaded in the Madras harbour every month. Not only is this a small amount but the allotment of costly foreign ships and the port and stevedoring delays make the shipping alternative a costly and delaying one. On top of these various depressing factors are the problems of transmission losses which have reached the high 20 per cent figure and internal manage-

ment problems of the State Electricity Board with its indiscipline, inter union rivalry and interference in its functioning. The result was that the State was expected to announce an increase in the power cut, involving production of 13 million units per day and after line losses, distribution of 10.5 million units. Against this background short term and long term measures are needed including (a) acting on the Union ministry's recommendation to strengthen and professionalise the management of the State Electricity Board and the thermal units maintenance, (b) reducing transmission losses, (c) activising the Tamil Nadu Power Generation Corporation (See Vol. III page 773) so that the generation of power, implementation of new schemes and the bulk sales of power to the State Electricity Board for distribution can be effectively carried out, (d) separating the staff into those specialising in maintenance and running plants from those responsible for design and building plants and improving their qualifications and know-how through expanded and updated training programmes at the Neyveli and Durgapur Institutes, (e) starting work on the second mine cut in Neyveli now so that the 1,900 MW gap between the demand of 3,620 MW and generation of 1,720 MW at the end of the Fifth Plan can be reduced by 1,000 MW which the second mine cut makes possible, (f) ensuring timely execution of Kalpakkam which by 1977 can feed into the State grid 300 MW, Tuticorin by 1979 which can feed 200 MW into the State grid, the Kundah fourth stage adding 110 MW and Ennore a further 110 MW along with 35 MW from the Suruliyar project and 50 MW from Nellithurai, (g) further developing the Southern regional grid through a co-ordinated study of the hydel reservoirs of the region to avoid spilling losses, putting into effect loop operation of the Andhra Pradesh, Karnataka and Tamil Nadu grid systems and completing work on the regional load despatching station, and (h) pursuing the arrangement with Karnataka for developing the Hoganekkal power project which can yield 800 MW in which the 2 States are interested and the common power grid with Sri Lanka through a submarine cable link across the Palk Straits which will provide 100 MW power to this State to start with and which can be further expanded on the basis of Tamil Nadu supplying power to Sri Lanka during the latter's lean months (July to October) and receiving power during this State's lean months (April to June). In relation to reducing transmission losses referred to in (b) above, the two Rs. 32 lakhs Rural Electrification schemes approved by R.E.C. in June should help to bring down line losses in the Erode, Usilampatti and Tirumangalam taluks where they are located. The 2 schemes will help save over 50 lakh units per annum. To date under R.E.C., Rs. 14 crores have been sanctioned to electrify 3,120 villages which will energise 44,800 pumpsets, supply power to 1,322 small industries and 1 lakh domestic and commercial connection.

The late South West Monsoon and the fall in the Linganmakki and Sharavati reservoirs, caused the most serious disruption in power supply in Karnataka which on June 21 increased the power cut on all HT users from 20 to 60 per cent with restrictions also on all other users. The result was a cut back in production and lay off of workers in all public and private sector units, IIT, Bharat Electronics, Mysore Iron and Steel. HMT, Hindustan Aeronautics, the State Electric Factory, Bharat Earth Movers, K.G.F., Kirloskar Electricals and Mysore Electricals. Andhra Pradesh increased its power tariff from 7 per cent (industries) and 6.6 per cent (agriculture) to 3[illegible].3 per cent (ice and ice fruit plants). June saw a worsening power famine all over the Country. The Northern

region comprising Punjab, Haryana, Himachal Pradesh, J & K, Rajasthan and U.P. faced a real crisis situation with the 80 per cent cut in Bhakra power supply due to a steep fall in the Gobindsagar Water reservoir level. Haryana industries virtually ground to a halt, affecting 40,000 workers. In Maharashtra and the Western region capacity shortages to meet peak load continued. In West Bengal there was need to impose power rationing, but the performance of generating units was so bad and there is so much mismanagement, that the government could not get the units to give a minimum supply figure on the basis of which rationing could be effected. Only in Gujarat was there a lifting of all power cuts mainly due to the restoration of Tarapur supply. The other bright spot was Tata Electric Company's 500 MW Trombay project originally costed at Rs. 75 crores but now at Rs. 87.41 crores which is supported by the State government and is awaiting Planning Commission approval, the proposed 2,300 MW Chandrapur power plant, (Maharashtra) based on the newly located deposits of high grade coal in the district and the joint Maharashtra Madhya Pradesh Pranhitha hydel project which would produce 100 MW of power. When these projects go on stream, Maharashtra would have doubled its power supply and not face the current shortage. Similarly the Planning Commission and Karnataka have agreed to develop the Sharavati tail race project and the second stage Kalinadi hydel project, and to make available 40 per cent of the power to Tamil Nadu and Andhra Pradesh. Another untapped area is Jammu and Kashmir which is, as noted earlier, perenially short of power but which has a total hydel potential of 7,000 MW of which only 1.2 per cent is currently tapped and only 7 per cent when all present projects are completed. If even half of this potential is used, the Northern region's power profile will be completely transformed. What is needed is thus long term planning which it is hoped the reorganised Central Electricity Authority can undertake with the State generating Corporations and even more, monitoring of effective implementation to avoid the 54 per cent shortfall in power achievement which characterised the Fourth Plan.

Housing: The 3 days Conference of State Ministers of Housing and Urban Development held in Madras at the end of May, as forecast in the last issue (See Vol. IV page 412), made 6 major recommendations; (1) It proposed a National Commission to formulate a national housing policy for adoption by the union and State governments in view of the magnitude of the problem (for the Country 120 million housing units are required plus 2 million per annum plus 25 million units backlog) and the resource constraints (to clear the back log alone in 2 plan periods at the cost of Rs. 10,000 per unit, Rs. 25,000 crores will be needed). Here policy and priorities are needed and a working group of Union and State officials are at work on this. (2) Another Committee of ministers has been set up on social housing schemes. Here the need to raise the income limit of eligible industrial workers from Rs. 350 to Rs. 500 per month, so that 25 per cent of the houses could be for them and 75 per cent for those under Rs. 350, for the low income ceiling a rise from Rs. 7,200 per cent annum to Rs. 12,000 with unit cost of construction rising from Rs. 18,000 to Rs. 25,000, and for the middle income ceiling a rise from Rs. 7,200-18,000 to Rs. 12,000 to 24,000 and the unit cost to be raised from Rs. 27,500 to Rs. 40,000 have been accepted. (3) A third committee has been set up to work on amendments to the land acquisition Act so that urban land can be acquired speedily. Here the socialisation of urban lands must be

speeded up. (4) Rural Finance Corporations, like the Housing and Urban Development Corporations are to be set up and it is recommended that their programme be part of the Minimum Needs Programme. In this State the first two years of the Fifth Plan will see 1 lakh houses built by the Tamil Nadu Harijan Welfare Corporation which in early June began building 58 houses at Kandachimangalam, 64 at Adari and 53 at Kalathur at Rs. 3,000 each. In addition under the Kudiyiruppu Act (See Vol. IV page 178) 33,692 families received plots in Thanjavur, which is also being extended to 8 more districts, the minimum plot is being increased from 2 to 4 cents, and the cost of development per plot ranges from Rs. 150 to Rs. 570. This State is in the forefront of this important programme. Also the Slum Clearance Board has formulated a Rs. 5 crore housing scheme for scavengers and the State is to finance the scheme. (5) The National Buildings Organisation is to develop economic specifications and a code for public buildings. Also the existing National Building Code needs to be revised to be made more flexible and adjustable to local conditions. (6) The identification and manufacture of suitable building materials to save cost and cement and steel should be undertaken by State governments as is done by the Celcrete plant in this State (See Vol. I No. 7 page 10). Here the Rs. 35 crores provided in the Fifth Plan for setting up the public sector Building Materials Corporation will ensure production of new and substitute building materials in consultation with State governments. The stage is thus set for, for an effective housing programme, if these recommendations are carried out. In this State the quantitative expansion needs to be supported by programmes to improve the living conditions in the new houses. The New Residents Welfare Trust which places welfare workers in these housing areas and the Day Care Centres which meet the needs of mothers and children in the tenements and employment are moves in the right direction.

Transport: The government is setting up a Transport Development Corporation with an authorised capital of Rs. 2 crores which will be subscribed by the State government, the 6 transport Corporations and the Shipping Corporation. It will float debentures and receive deposits in order to finance schemes for the development of the transport services. Also the government is setting up a Management Consultancy Service for the Public transport system to provide technical assistance in transport matters to the increasing number of officials from other states visiting this State for advice and guidance. As a means of promoting tourism, the government has proposed to the Union authorities to restore the dormant airstrips near the various district headquarters. A start might be made in the centres of tourist interest. To improve rural transport services, Rs. 3 crores are being spent to provide roads for 3,500 villages with a population of less than 5,000 each. A plan to extend it to 11,000 villages at a cost of Rs. 20 crores is now under consideration. For the city, the Railway Board has cleared the Tiruvottiyur/Tiruvanmiyur Mass Rapid Transit system and techno-economic feasibility studies for fixing suitable alignments and systems selection along the route will now be undertaken.

Inter-State Co-operation: The meeting of Chief Ministers of Tamil Nadu, Kerala and Karnataka with the Union Minister of Irrigation at the end of June agreed on the principles for sharing of the Cauvery waters on the basis of the Second report of the fact finding committee, (See last issue Vol. IV page 410) involving improvement and modernisation of irrigation systems, better water management and

control, diversification of cropping pattern and replacement of surface by ground water and integrated operation of the Cauvery reservoirs. On this basis, further technical studies are to be made and a final meeting held in September in Bangalore to establish the agreement. The construction work of the Rs. 4 crores dam on the Siruvani to import drinking water to Coimbatore (See Vol. III pages 233, 620) is progressing rapidly with the Kerala government building the roads, levelling the site etc. While Kerala will provide 1,300 million cubic feet of water to Coimbatore, it would also irrigate 10,000 acres in Attapadi in Kerala. The Western Ghats area Committee comprising Maharashtra, Karnataka, Kerala, Tamil Nadu and Goa at its June meeting with the Union Planning Commission decided to start with a comprehensive techno-economic survey of the area including infrastructural facilities. The Rs. 20 crores for the scheme will be used essentially as seed money to mobilise institutional finance. On the Southern Food Zone project, (See last issue Vol. IV, page 410), the Chief Minister of Andhra Pradesh has expressed opposition because of the price rise it will cause within the State. This State has taken the same line.

Welfare: The Chief Minister launched in June a programme for the rehabilitation of the State's 2.3 lakh physically handicapped with a voluntary contribution of Rs. 1 crore. The programme includes: (a) 1,000 physically handicapped after training to be absorbed in Transport Corporations, Civil Supplies, Cottage and Village Industries departments (b) a Rs. 10 lakh engineering workshop in Mahabalipuram to train 150 persons, (c) 5,000 to be trained in mat making, beedi rolling, hosiery making etc. in 50 centres, (d) 20 centres to train 400 deaf and dumb in shorthand and typewriting, (e) 25 centres to teach 500 tailoring, (f) 100 SSLC to be trained in computer operation and card punching (g) special employment exchanges to be opened in all districts, (h) 25 more special schemes, (i) 1,000 hearing aids for poor deaf children, (j) 10,000 more handicapped to be given pensions at 55 years and (k) 2,000 wheel chairs for poor handicapped persons. Another programme relates to the 1,32,000 repatriate families from Sri Lanka who will come to the Southern States in the period 1974–1981. Of the 57,000 families who will come in the Fifth Plan, plans are under way, to settle 22.5 per cent in plantations and land colonies, 15 per cent in the rural economy and the remaining 62.5 per cent in industrial occupations. While the financing of this programme is that of the Union government, the settlement of the repatriates should be part of the development plans of the Southern States. Too large a number is being projected for the non-agricultural sector. This should be reviewed State by State.

National

Fifth and Annual Plans: June saw no further official progress in the finalisation of the Draft Fifth Plan. Internal exercises are underway in the Union Planning Commission to allow for the price increase and maintenance and in some cases reinforcement of the priorities for agriculture, power, steel, transport and irrigation with full utilisation of capacity and completion of spill-over projects. Into this is also being built a rather vague national wage, income and price policy. On the annual Plan, there is a serious attempt to hold down the deficit to the budgetted amount of Rs. 125 crores. But this can be done, if the increased investment demands of steel, power, coal and fertilisers plus the additional D.A.'s are to be met by cutting back on the Plan outlay of Rs. 4,843.63 crores presented to Lok Sabha in May (See Vol. IV page 338). The first reduction

should fall on non-plan, non-development expenditure, but it is much easier to cut the plan by Rs. 150 - Rs. 200 crores and that it is likely to be done. On the non-plan side the subsidies on fertilisers and edible oils have been cut and that is as far as such cuts can go unless a serious effort is made to cut back on all direct and indirect subsidies on all unessential commodities.

Prices: The official wholesale prices index crossed the 300 mark in May. As at May 25 it increased to 301.7 compared to 297.8 the previous week ending May 18, the increased being 4.6 points or 1.5 per cent. The price rise gathered momentum, in May, rising from 0.2 to 0.4 per cent in the earlier weeks. The momentum kept up in June for which the official data are not yet available. The Consumers' Council reports that consumers were required to pay 25 to 30 per cent more on essential commodities all over India in the midst of rampant adulteration of food articles and trade in spurious or sub-standard articles, with Orissa in the lead and Tamil Nadu in the fourth place. June also witnessed a sharp rise in prices in this State which till now had enjoyed relative stability, rice by 35 per cent, oils and spices by 15 per cent, soaps by 20 per cent and sugar by 20 per cent. There were the usual monetary and non-monetary factors at work feeding the inflation. Money supply increased in the first half of April by Rs. 409 crores to Rs. 11,159 crores. During May, which is the start of the slack season, bank credit expanded by Rs. 196.49 crores. Towards the end of June, RBI raised bill rates from 9.5 to 11 per cent to curb the bill market finance and exhorted banks to place restraints on credit, which by June end had passed the 100 per cent ratio of incremental credit to increment deposits instead of the norm of 35 per cent. But this was still in the discussion stage. On the non-monetary side, the government announced a series of price rises— fertiliser by 80 per cent, foodgrains by 10 per cent, edible oils by Rs. 2 per kg., sugar by Rs. 20 per quintal, cloth by 10 per cent, aluminium by 12 per cent, coal by Rs. 10 per tonne, tractors by 20 per cent, and scooters by Rs. 211-229. The explanation that the inflation is due to the Indian economy having become a low cost economy instead of being as it was till now a high cost economy, so that the cushion of cheap imports is no longer available is only valid for a few commodities like fertilisers, crude, and some capital goods. Given the small share of internationally traded goods in our total national product, the explanation for inflation must be sought in the volume of money, distorted distribution and stagnant investment and production. On the monetary side, the 140 academic economists have followed up their memorandum to the government in February (See Vol. IV pages 269-270 and 304-307) by a supplement in June termed Semibombla, a rather awkward abbreviation for the Scheme of the Economists for Monetary Immobilisation through Bond Medallions. Referring to the continuing inflation and its serions inpact on the 40 per cent poor, the June memorandum sets forth a draft ordinance to reduce money supply by 30 per cent, in exchange for 10 year saving certificates for notes of Rs. 100 and above and bank accounts and indexed gold plated medallions in exchange for notes of Rs. 1,500. Black money forming 55 per cent of currency will enjoy similar treatment, after tax payments. It estimates that these measures will cut prices by 20 per cent—a step which can be consolidated by keeping increase in money supply down to 5 per cent. This reiterated proposal on the money side must be accompanied by structural, production and distribution measures including measures to combat hoarding and speculation as advocated in the February memorandum.

A Wage and Income policy : Further to the inflation brakes discussion and the background of a National Wages income policy discussed in the last issue (See Vol. IV pages 414–415), the Union government is in the process of finalising an interim set of measures on this account. The existing wage map in the Country needs to be charted as is being done by the Union ministry of Labour. Pending it, the wage income situation is characterised by (a) absence of uniformity and the presence of wide disparities, as wages are determined by collective bargaining and represent in each case the relative strength of the two parties, (b) absence of any relations between low wages and high salaries plus perquisites, (c) declining share of wages as a percentage of value added from 40 in 1960 to 36.5 in 1964, (d) wages of organised labour being a small percentage of total wages, with no regulation of wages of the unorganised sector and (e) the pressure of growing unemployment and under-employment and the existence of unlimited supply of labour at low wages. Against this, a wage income policy must (a) establish a minimum wage which for a family of five is around Rs. 200 (at pre-inflation rates), (b) on the basis of the wage map of the Country, wage levels should be established by skills for a number of regions into which the Country should be divided, (c) D.A. should neutralise 100 per cent rise in prices for the minimum wage earners and taper off as wages and salaries increase, (d) a ceiling on highest salaries plus perquisites should be established and the ratio between lowest and highest salaries for this Country suggested is 1 : 10 after tax or 1 : 16 befor tax, (e) a relation should be established between wage rise and productivity increases, (f) the profits ceiling should eliminate excess profits due to speculation, hoarding and monopoly and bring into the open unaccounted money and (g) either a system of stable prices or a system of public distribution of essential goods at low prices reaching out to all workers organised and unorganised. Now the problem is to bring about a transition from the present chaotic situation to one conforming to the above policy. Here in addition to examining the impact and working of D.A. on which five instalments were given last year and 2 have become due in the first 3 months of this year, the first steps may well be the 4 point plan now under discussion: (a) fixing a minimum wage (b) regulating higher salaries (c) relating wage increases to productivity and (d) promoting a system of non-monetary incentives to increase production and keep down costs. This policy should be applied in relation to wage levels in different zones of the Country and should be implemented by a National Wages Board or Commission.

National Production Front :

Industrial growth : The Union Ministry's index of industrial production for 1973 was an average of 199.5 compared to the 1972 average of 199.3. This means that there was no industrial growth in 1973 (0.1 per cent) compared to the 7.1 per cent growth in 1972. Taking the Fourth Plan, during 1969–70 industrial growth was 6.8 per cent, in 1970-71 it was 3.3 per cent, in 1971–72 it was 4.5 per cent, in 1972-73 it was 5 per cent and with no growth in the last year, the plan achievement was 4.1 per cent against the target of 8-10 per cent. The causes for this poor performance are known—declining investments, production below capacity as in steel and fertilisers, poor planning and execution as in newsprint, power cuts and labour problems in textiles, cement, engineering etc. It is hoped that the guidelines for 1373-74 for the use of capacity, creation of new capacity, reservation of 177 items for small units, and improved licensing will tell a different story in 1974.

Steel: Hindustan Steel reports that its loss for 1973-74 was reduced to Rs. 9 crores compared to Rs 27 crores for the previous year (See Vol. III pages 328, 483), due mainly to Bhilai Steel ending with a Rs. 13 crores surplus, Rourkela breaking even and Durgapur reducing its loss. It also estimates that the Railway strike in May caused an 80,000 tonnes loss in production, though as noted in the last issue (Vol. IV page 408), the railways kept up their coal supply. By the end of the Fifth Plan Rourkela (1.8 million tonnes) and Durgapur (1.6 million tonnes) are expected to reach their capacity, while Bhilai will be expanded to 4 million tonnes. The problem with our Steel production is that we have all the know-how and technical capacity but lack the managerial skill to provide the co-ordinated infrastructure of power, coke, ores, transport and sound industrial relations. The most serious of these is power. TISCO, IISCO (whose take over is extended to 1977) and Durgapur have had problems with DVC as noted in earlier issues and the question of their having their own 3,000 MW power grid which will provide them with their needs and a cushion becomes an urgent issue. The starting of Korba aluminium should not be allowed to reduce the power supply to Bhilai. Coking coal from BCCL which is supposed to be under SAIL is inadequate as is the quality of CMA's coal and their railway transport as well as those of other ores. Above all there is the need for industrial peace. These are SAIL's priorities. It is good that SAIL is setting up a Central Workshop to produce spares—medium and heavy—to meet expansions and the needs of the three Southern plants. This together with producing some of them within the plants should reduce our annual import of spares of Rs. 13.6 crores. SAIL also holds out hopes that there will be larger supplies of steel and pig iron this year both from the integrated plants and from arc furnaces for the Southern industrial consumers so that there is no need *for an increase in their prices.*

Crude : In June there was a further rise in crude prices for the country. The OPEC countries after their June meeting announced a 2 per cent rise in royalty rates which increases the country's import bill by Rs. 4.5 crores (The net oil income of the eleven OPEC countries will be $115,000 million this year with Saudi Arabia $29,000 million, and Iran $20,000 million). Further, ESSO has asked for a price rise of 30 cents per barrel making the price rise since January $ 1.28, the Burmah Shell rise being $ 1.27 and Caltex 75 cents which works out to $ 9.56 per barrel for Esso, $ 9.75 for Burmah Shell and $ 9.50 for Caltex. These increases mean Rs. 60 crores more in the import bill. It should be recalled that the government to government purchases are at much higher prices of around $ 11-12 per barrel. In light of this, the government has at long last (a) prohibited use of HSD and LDO for generating electricity on ceremonial occasions (b) cut the allocations of HSD and LDO to the States (c) planned further cuts in the 25 per cent kerosene allocation (See Vol. IV page 349) and furnace oil consumption. For this year only 13.5 million tonnes of crude are to be imported at a cost of Rs. 843 crores, 1 million tonnes of kerosene at Rs. 110 crores, 2 million tonnes of furnace oil at Rs. 110 crores and 1 lakh tonnes diesel making a total of Rs. 1,118 crores instead of the Rs. 1,300 referred to in Vol. IV page 273. At the end of June the government imposed a 24 to 35 per cent cut in the foreign exchange allocation for crude in July which will seriously affect the working efficiency of the coastal based refineries. The cut should be made rather in the government purchases. Meanwhile the government is planning to export petroleum products to earn Rs. 120 crores in foreign exchange.

Following the initial exports referred to in the last issue (Vol. IV page 421), it is now plenned to export 30,000 tonnes of naphtha every month of which there is an accumulating surplus as well as bitumen, lubes, orthoxylene and 93 Octane petroleum. Tests show that by 1976 Bombay High will yield 1 million tonnes of crude, and negotiations are underway with Italian and Japanese companies for offshore drilling in the Cauvery and Kerala offshore areas. ONGC is also acquiring a seismic vessel for locating offshore oil areas. The IIT Guindy computer is being used by Oil India to increase production. Projects for converting coal into liquid fuel are under study and experimentation. Technical opinion is divided as to the feasibility of the project and the high cost of the technology involved. A Rs. 8 crore plant to produce domestic fuel from coal is being set up in Ramakrishnapur and its conversion of 900 tonnes of coal per day will be watched with interest. While the oil fund facility of IMF with its high interest rate and hard loan conditions to which Saudi Arabia has contributed 1,000 million SDRs, Iran 600 million SDRs and other OPEC countries 700 million SDRs is not helpful to India and other developing countries. The United Arab Emirates which produces 2 million barrels per day has offered to build a refinery and supply it with crude as well as supply Haldia with crude on soft term loans.

Coal: The average increase in the price of coal by Rs. 10 per tonne referred to earlier is justified on the basis of rise in the wage bill. According to the Coal Consumers Association the price rise in various grades of coal and coke will mean an increase of Rs. 84 crores for all consumers this year, with power houses, steel plants and railways carrying the main burden. Private industrialists using coal compute that their coal costs including higher transport will mean 44 to 61 per cent increase in coal costs. The price rise was overdue and involves really little hardship. It is hoped that it will help the sector to reach its Fifth Plan target of 140 million tonnes.

Vanaspati: As noted in the last issue Vol. IV, pages 424-425 Vanaspati production and prices were subjected to stress in June. *Out of the 76 factories producing it*, 40 units suspended production for sometime in June. Vanaspati which is 22 per cent of the country's edible oil with an installed capacity of 12 lakh tonnes per annum, produced only 4.5 million tonnes in 1973 because there were not enough raw edible oils. For this year with a near doubling of the groundnut crop at 60 lakh tonnes compared to 39 lakh tonnes last year which means 5 lakh tonnes more oil, there is no excuse for the suspension. It is true that the government which had been importing 1.5—2 lakh tonnes of soyabean, rape seed and palm oil at Rs. 1,600 per tonne against the indigenous price of Rs. 8,500 has suspended imports because the international price has jumped to Rs. 5,600 per tonne. The fortnightly controlled price had been fixed at Rs. 7.50 per kg. and this, the industry claimed, was producing heavy losses as its cost was Rs. 8.50. Actually Vanaspati was selling at much higher prices in the black market and the industry and trade were getting high profits. In mid June the government raised the price by Rs. 1.80 to Rs. 2.20 per kg. but even this has not relieved the consumer. Either the controlled price should be rigorously enforced or the price should be left to market forces which will prevent black marketing and high profits and prices.

Newsprint and paper: Newsprint demand for the year based on 1972-73 consumption is 2.17 lakh metric tonnes and availability is 1.33 lakh tonnes. Hence a

uniform cut of 40 percent has been imposed on all newspapers, with no provision for new ones. For this year 85,650 tonnes are being imported, 79,000 from Canada at Rs. 2,848 per tonne, and 7,000 from Bangla Desh at Rs. 3,393 per tonne. The Soviet Union's price of Rs. 4,200 per tonne is holding up the import of 22,000 tonnes. The government has appealed to UNESCO and UN to ensure a more equitable world distribution of newsprint. US is consuming 12 million tonnes annually, Western Europe 6 million tonnes and all the developing countries only 5,00,000 tonnes. As production is not being expanded, this unbalanced consumption of the rich countries is creating scarcity conditions in India and other poor countries. Meanwhile plans to expand NEPA and speed the 70,000 tonnes Kerala project must be expedited. In June the government raised paper prices by 40-45 per cent and in exchange obtained 2 lakh tonnes of printing papers at Rs. 2,750 per tonne for educational purposes. Craft paper has gone up by Rs. 1,500 per tonne over Rs. 3,100, pulp board Rs. 1,400 over Rs. 3,700 and special printing paper Rs. 2,000 over Rs. 4,150. Even so the availability of paper at these rates is limited.

H.M.T. Tractors and Wagons: A bright spot in last year's production was HMT which in its Bangalore unit produced upto and beyond capacity in machine tools and watches and whose production in its five locations was Rs. 40 crores including Rs. 2.17 crores in export earnings. For this year the target is Rs. 65.5 crores and a start on 19 new diversification schemes. Tractor production which was 25,000 last year is being increased to 40,000 this year against the Fifth Plan target of 80,000. As noted earlier due to increased cost of imported components, indigenous raw materials, excise, customs and wages, prices of all tractors were raised from 10 to 20 per cent in June. The government has set up a joint sector unit, Wagon India, to rationalise and co-ordinate the production programme of its constituent units and improve the execution record of the internal and external orders for wagons (See Vol. III page 410). As part of its modernisation programme of the 5,000 small industries in the country, the government has started with 10 selected industries ranging from automobile parts and accessories to scientific instruments and storage batteries providing them with an integrated package of machinery, finance, raw materials and technology. This should improve their production base.

Fertilisers: Fertiliser prices were sharply increased in June, by 90 per cent for urea, 58 per cent for ammonium sulphate and 70 per cent for calcium ammonium nitrate to meet increased costs of naphtha and fuel oil, compensate the Rs. 6 crores loss of FCI's Sindri unit last year and above all to obviate the Rs. 400 crores of subsidies to fertiliser imports. Similarly imported fertilisers prices have been increased. The immediate effect has been to slow down market arrivals of wheat and push up its price. Internal production was lagging last year by 1,35,000 tonnes below the modest target of 1.4 million tonnes. This shortfall is attributed to power cuts in the North, labour troubles in the South and poor technology in the case of Cochin and Durgapur. The government is intensifying the compost production programme by setting up 45 mechanical compost plants in cities with a population of 3 lakhs and more, starting at the end of the year with Allahabad, along with a rural compost programme to produce 350 million tonnes a year. It is also planned to more than double the production of weedicide to 2,000 tonnes to save 60,000 tonnes of fertilisers. These are needed measures but are no substitute

for capacity production of our fertiliser plants.

Agricultural Production: In the first half of June, wheat procurement and wheat market arrivals continued to be low, continuing the trends analysed in the last issue (Vol. IV page 425). At the end of the first week, in Punjab 4,000 quintals were the daily market arrivals against 20,000 quintals a year ago, in UP 48,000 tonnes had been procured against 5.34 lakh tonnes at that time in 1973. Wheat prices were ranging from Rs. 175 to Rs. 182 in UP and in Delhi Rs. 200-225 per quintal. At this rate the prospects were that not even 50 per cent of the procurement target of 5.5 million tonnes would be attained. The buffer stock of 2.5 million at the end of 1973 was almost depleted and the Soviet 2 million tonnes wheat loan which was arriving was being used in the public distribution system. Against this backdrop, the Union government on June 6 statutorily fixed the price of wheat at Rs. 150 per quintal for inter-State transactions by private dealers which with transport costs, bagging and wholesalers' and retailers' commission meant that the price would range from Rs. 158 to Rs. 170 per quintal in the deficit States. In all states wheat prices have risen. In the Punjab from 80 paise per kg. to Rs. 1.20, M.P. from 83 paise to Rs. 1.23, Andhra from Rs. 1.30 to Rs. 2, Kerala from Rs 2 to Rs. 2.75, and Tamil Nadu from Rs. 1.40 to Rs. 2.40. Tamil Nadu purchased 13,000 tonnes from Haryana and 22,000 tonnes from Punjab to meet its monthly need of 35,000 tonnes. The rise in fertiliser prices referred to earlier and the statutory fixing of non-levy wheat price further slowed down market arrivals and increased hoarding. At mid June Haryana reported daily arrivals of 4,000 tonnes, down from 8,000 tonnes the previous week, with a fall in prices by Rs. 8-10. Towards the end of June, there was a slight improvement in the situation. By June 20, rabi wheat procurement was 1.23 million tonnes and market arrivals 2.3 million tonnes. Punjab procured 7.5 lakh tonnes, U.P. 1.6 lakh tonnes, including 30,000 tonnes from dehoarding raids, M.P. and Rajasthan were doing well and even deficit States like Gujarat, and Maharashtra had procured most of their small targets (18,000 tonnes out of 20,000 tonnes in Gujarat, and 16,000 tonnes out of 25,000 in Maharashtra). It is likely that about 4 million tonnes will be procured at this rate if the Union Government's forecast of 108 million tonnes—5 million short of the target—is realised. The Northern States want the Kharif procurement prices for 1974-75 to be announced so that there might be a larger area covered and increased production ensured. Farmers in Punjab and Haryana who are expected to contribute 1.45 million tonnes from Kharif output face a serious problem. 60 per cent of them are small farmers who spent Rs. 200 per acre on fertilisers for last year's rice and wheat but who will have to spend Rs. 360 this year for the same fertiliser dose. Once more the gains are with the large farmers who can hold back grain, obtain a higher price and buy fertilisers. Hence a good deal depends on Kharif procurement and price policy. In fact, in June detailed discussions were held between the Union and State governments on ways of increasing yield rates for the coming kharif and rabi seasons. The constraints are scarcity and higher price of fertilisers, no increase in land, particularly irrigated land and so State by State, area by area, the optimum use of minor irrigation in command areas, priority in electric and diesel power for agriculture, co-ordinated and economic use of quality seeds, fertilisers, pesticides and compost and effective credit arrangements are being planned. The rice target of the Fifth Plan is 54 million tonnes against the 42 million tonnes

Fourth Plan achievement, which means a doubling of the Fourth Plan annual growth of 2.1 per cent. For this year the target is a modest—46-47 million tonnes and a new technique is being developed, under which groups of farmers using all irrigation sources will raise paddy seedlings, so advancing the planting season, ensuring seed bed protection along with the use of the particular HYV for that particular area. It is a difficult task to increase yield with lesser inputs and this is the task of management.

Exports: The provisional figures issued by the Commerce Ministry show an export earning of Rs. 2,411 crores, a 23 per cent increase over the previous year's (and not Rs. 2,352 crores, a 20 per cent increase as reported in the last issue (See Vol. IV page 428). Good as this was, it was much less than the 37 per cent by which world exports expanded in 1973-74 and the 32 per cent growth to the developing countries. Also the imports increase in 1973-74 was double that of exports at Rs. 2,636 crores, a 44.3 increase over 1972-73, turning that year's trade surplus of Rs. 134 crores into a 1973-74 deficit of Rs. 225 crores. As suggested in the last issue (Vol. IV page 428), the current year's export target is raised to Rs. 2,600 crores, but even so there will be a large gap between imports and exports because of crude, fertiliser and food prices. The good export earners are textiles, oilcakes, fish, sugar, iron ore which increased both in volume and value. Fish exports increase by 34.4 per cent in volume and 49.9 per cent in value mainly shrimps, lobster tails and frog legs to Japan, US and Western Europe. Sugar exports are keeping up with orders in the current year for 1.77 lakh tonnes valued at Rs. 79 crores. Engineering exports which did well at Rs. 178.25 crores and whose target for this year is Rs. 250 crores face various obstacles in shortages of inputs like steel, pig iron, hard coke, aluminium and credit. The ministry must help this sector meet these shortages. The export organisation of BHEL and the Indian Consortium Power Projects which is being merged with BHEL will also expand exports of heavy electrical equipment. The bonded industrial estates being set up in Haryana at Gurgaon for ready made garments, Karnataka at Bangalore and Mangalore, and UP at Mathura, Ghaziabad and Agra in addition to those at Dum Dum (multi-purpose) and Bombay (electronics) will boost exports particularly as TDA imports for them needed machinery (in 1973-74 Rs. 1.63 crores were imported to help Rs. 5.24 crores of exports). So far the Country has failed to use EEC's GSP. If labour intensive goods such as leather goods, hand tools, bicycles etc. are pushed, there should be an export earning of Rs. 100-150 crores from these countries this year. TN's plans for export of interlining of garments, fibre glass yachts, ready made shirts and electronic calculators are sound and expandable. Another area waiting to be developed as pointed out in earlier issues is West Asia. Iran and Saudi Arabia have placed orders for Rs. 35 crores worth of steel bars, billets, rails and rods at the ruling international price of Rs. 3,500 per tonne. The government plan to cut back the domestic consumption of cement in order to export it to West Asia where this is in high demand is good, provided the cut back is not only on private users but also on some of the wasteful and ostentatious governmental constructions. Also the recommendations of the Ministers of Housing Conference (referred to under the State section) ensures the replacement of cement by lime mortar—and if the Science and technology plan's 100 tonne capacity lime kiln is operated, there could be cement available for export. On the other hand there are export items which

are stagnant in quantity but because of the price rise have recorded high earnings last year. These include chrome tanned leather, cashew kernels and tobacco, whose production must be expanded. Jute exports fell both in value (Rs. 10 crores) and quantity. For this season JCI reports exceeding its target and exporting 5.2 lakh bales at Rs. 2.5 crores which could have been more if there was more shipping. The major problem in the export sector is the stagnant investment picture. With a stagnant 12.2 per cent of net investment to net domestic product in 1971-73, it is feared that investment had declined last year. This together with the declining unit value of some of our major exports such as oil cakes and leather goods means that investment in this sector must be stimulated, the production base expanded and marketing strategies in West Asia, ECM and North America further strengthened and sharpened to pay for our enormons import burden. The setting up of an Import-Export bank to ensure financing of the export trade can be helpful.

Aid: India's total aid profile is a mixed one. The Aid India consortium meeting in June pledged $ 1,400 million (Rs. 1,120 crores) for 1974-75, $ 800 million in non project aid mainly debt relief, and $ 600 million in project assistance. Sweden increased its aid pledge by 48 per cent over last year. UK by 19 per cent and France and West Germany by 19 per cent each, most in fast disbursing form. There was general agreement with the World Bank's recommendation to reschedule 45 per cent of the debt. In the last ten years the net aid has increased from Rs. 452 crores to Rs. 712 crores, with changing roles, US which in 1963-64 provided 51.1 per cent of aid was last year down to 9 per cent. UK has expanded from 7.7 per cent to 16.2 per cent, Japan from 4 to 10.8 per cent, USSR has fallen from 17.5 per cent to 2 per cent and the World Bank has jumped from 10.2 to 38 per cent. Our total foreign exchange resources for 1974-75 will be Rs. 2,600 crores from exports plus Rs. 550 crores net aid from the Aid India Club plus Rs. 75 crores from the Soviet Union plus Rs. 300 crores from the IMF gold tranche plus Rs. 160 crores from Gulf Countries oil credits, making a total of Rs. 3,685 crores. About Rs. 200 crores should be reckoned as the shortfall in the aid pledged. Without food imports, our import requirements for this year are likely to be, crude Rs. 1,150 crores, fertilisers, Rs. 500 crores and steel, ferrous metals etc. Rs. 1,450 crores totalling Rs. 3,100 crores. This is a tight position and it is good that as of May 74 our foreign exchange reserves augmented by IMF drawings (See last issue Vol. IV page 430) of Rs. 361 crores amount to Rs. 792 crores and with gold and SDRs Rs. 1,100 crores. The largest aid for this year ($ 600 million) will be from IDA which has now finalised $ 50 millions for FCI's Trombay fertiliser project, $ 52 million for the Chamba Irrigation Project as forecast in the last issue (Vol. IV page 431). In addition, the World Bank is negotiating a Rs. 24 crore loan for the Godavari barrage project. Also Sweden is providing this year Rs. 32.07 crores for export promotion of 16 small scale industries. Negotiations are underway for credit from COMECON's International Investment Bank's 1,000 million roubles Special Fund.

International:

Bangla Desh: In June Bangla Desh concluded an agreement with EEC to allow continued duty free entry of jute into UK and Denmark and a 40 per cent reduction this year and 60 per cent next year of the 8 to 22 per cent duty levied by other members of the Community.

Bangla Desh needs a much broader agreement to cover exports of fish, tea, spices, paper, leather and leather goods as well as jute to balance her trade position which showed for 1973 a trade gap of 251.4 crores of takas. All her imports increased in price, rice by 182 per cent, wheat by 80 per cent, cotton yarn by 118 per cent, steel by 238 per cent and so on while export prices rose only for newsprint and carpet backing. The government has proposed to the World Bank an 84 per cent exemption of her past liabilities, at whatever figure they are fixed after the June talks with President Bhutto which starts in June and the other 16 per cent to be regarded as on IDA loan. The Indian MECON team started work in June with the Bangla Desh Steel mills Corporation on the feasibility report for the Sponge iron plant (See Vol. IV page 27) and is submitting in September a report for the selection of site and transportation. India is also co-operating in the establishment of a 4.5 lakh tonnes capacity urea plant in the Country.

World Monetary Reform: The IMF Committee of 20 at its final meeting in Washington in June established an attenuated Monetary reform plan which was not a reform as much as recognition of existing realities and which was based mainly on wishes of the affluent countries —both the industrialised ones and the oil rich developing countries. First there was no long term plan on exchange rates and international trade relations on which the proposal was based. Second all the major decisions of the Committee of 24 representing the developing countries were ignored—mainly because the oil rich countries did not support them. The link between SDRs and development assistance was not accepted, the demand that the solution on gold should not worsen inequitable liquidity distribution was not accepted, the extended oil facility was in effect established at a cost which no poor country can pay, the demand not to increase SDR's interest rate was not accepted and the larger voting power and larger quota for developing countries was also shelved. What was agreed to as the reform package was: (a) a system of managed floating currencies to float within guidelines: (b) a voluntary pledge by all countries not to introduce or intensify trade and other measures to improve their balance of payment position without IMF approval: (c) IMF to assess changes in financial reserves of any country and examine the need to change its exchange rate: (d) from July 1, SDR to become the basic unit of international value in place of gold and valued in terms of a basket of currencies including the US and Canadian dollar, the Japanese yen and several European currencies: (e) SDRs to carry an interest rate of 5 per cent with the proviso that it may change in turn with other interest rates (which means it can rise higher): (f) countries with difficult financial problems resulting from high oil prices may use gold as collateral security for borrowing at prices above the official $ 42 per ounce price: (g) an oil facility consisting of $ 3,000 million ($ 3,500 million had already been contributed by the oil producing countries) from which countries facing serious balance of payments difficulties due to oil imports can borrow at 7 per cent interest and repayable in 7 years: (h) *a new fund facility to provide long* term finance to help balance of payments problems of developing countries: (i) a joint ministerial committee of the IMF and World Bank to deal with the *transfer* of resources to developing countries: (j) the link between SDRs and development assistance to be considered in February 1975: and (k) the establishment of a new IMF Council of ministers to continue the process of monetary reform. With this package of proposals, the committee of 20

is dissolved and the September annual Conference of the IMF will examine and ratify these proposals and set up machinery for future work on monetary reform. As suggested in the last two issues it is necessary for that conference to give the new committee broad terms of reference to examine and recommend a monetary system in which fluctuating and changing exchange rates will be normal rather than the exception and to ensure a more equitable world monetary system. For the non-oil producing developing countries what has emerged is unsatisfactory. There is no SDRs development assistance link, there is not an adequate voice for the developing countries in IMF, the decisions of the rich countries as in the group of 10 agreement to use gold as collateral security are decisive, the high interest rates on SDRs will increase the large resources of the affluent industrialised and oil producing countries, and the oil facility is a hard bankable loan which will increase the burden of indebtedness of the developing countries. This is probably a bad moment to plan monetary reform. Even the developed countries face serious balance of payments problems. By March end UK, France, Italy and other developed countries drew over $ 13,000 million from the Euro-credit market, leading to increase of interest rates from 8.3 to 10.6 per cent. IMF reports as of March 31, the oil producing countries increased their foreign exchange reserves $ 19,072 million or 43 per cent, while almost all developed countries experienced a fall in their reserves. Gold reacted to the reform proposals by falling to $ 134 an ounce but then rallied to $ 140, the Pound Sterling and the US dollar also followed suit in the money markets.

World Aid following the UN Special Conference: The one year relief fund starting June 15 for the COMSA countries (See last issue, Vol. IV pages 361-362 and 433) has made a halting start. Against a target of $ 3,000 million for the one year fund, the US pledged $ 500 million subject to US Congressional approval and other countries matching it, the EEC pledged $ 500 million with a West German caveat that US contribute $ 500 million, Japan and the other non-EEC affluent countries contribute $ 500 million. and the oil producing countries contribute $ 1,500 million. Iran has pledged $ 200 million and the United Arab Emirates have pledged $ 520 million subject to other countries' reactions. Canada and Scandinavia are the only ones who have made an unconditional pledge of $ 326 million. Thus at the end of June, the Fund is in the position of having $ 326 million plus $ 1,720 million in conditional pledges. The value of this programme is that it should be operational from July if the most seriously affected developing countries like India, Bangla Desh and Pakistan are to maintain their imports during the year and not interrupt their development efforts.

World Food: Two documents for the UN World Food Conference (See Vol. IV page 135) to be held in Rome from November 5-16 being organised by FAO and UNCTAD have appeared, one assessing the present low food stocks, inflated food grain prices and serious problems of malnutrition of the growing population. It estimates that 800 million people forming 25 per cent of the population are suffering from malnutrition and that the cereal demand of developing countries will increase from 600 million tonnes in 1970 to 900 million tonnes in 1980, involving 10 per cent of total needs to be met by imports. There is need for massive investment in agriculture in developing countries who have unused millions of hectares of farm land, large livestock potential and unlimited labour. The second document sets forth measures for increasing food

production and consumption in developing countries, improving co-operation in maintaining food stocks and co-ordinating national reserve policies so that adequate supplies are available at all times, and the specific measures to ensure greater stability in food prices and greater consistency between national and international agricultural policies. An IMF survey shows that developing countries who are oil producers will in 1974 face a food grains import bill of $ 8-9 billion. The imported 37 million tonnes of wheat and rice which was 13 million tonnes or 50 per cent more than the 3 preceding years. Wheat prices rose in 1973 by 300 per cent compared to 1972 (from $ 1.90 to $ 6.25 per bushel). It has since fallen to $ 3.70. Rice prices rose by 350 per cent and its import availability was limited in 1973. Large US and USSR wheat harvests are helping the 1974 wheat exports in the first half of the year and the further easing of the prices and supply depend on whether there is a bumper harvest this year. On that basis, the US agricultural department forecasts that retail food prices will continue to rise this year because of general inflationary forces but even so that they will rise less fast in the remainder of 1974 than they did in 1973.

Law of the Seas: The UN law of the Sea Conference opened its 10 week session in Caracas on June 20. The issues facing the Conference are some of the vital issues of development. They include the establishment of an International Sea Bed Authority with powers to explore and exploit the sea bed resources—food and minerals—for the benefit of all countries and people. One proposal is for the UN authority to lease the areas outside agreed territorial limits to commercial companies and share out the income among all countries. Second there is the problem of land locked States and their rights and interests. Third there is the question of the sea boundary which is the most immediate and difficult question. Here there are 3 views; One held by the great maritime powers that the boundary is 3 miles, a second held by India to which the US now adheres that the territorial limits are 12 miles and a third held by the developing countries that in addition there is an exclusive economic zone of 200 miles including a fishery zone. On top of this is the question of the continental shelf which under international law extends to an area outside the limit of territorial waters—3 miles, 12 miles or 200 miles—to where the depth is 200 metres. While the main fishing areas for a Country are within the 200 miles limit, the minerals are usually at the edge of the shelf. The questions of sea boundaries are important as deep sea fishing is now a major industry and off-shore gas and oil has a potential wherein over 50 per cent of them will be from the sea bed by 1980. There is also the question of the straits and the settlement of disputes between them. The conference in its first week hammered out its decision making procedure, which will be by consensus or a two thirds majority of a two thirds of the 149 States attending the Conference.

Multinationals: The UN report on Multinational Corporations (MNC) is an important development document. MNCs with their large size, interlocking directorates and massive resources can be powerful engines of growth, but apart from a few instances of political intervention in the host Country, their investment practices, repatriation of profits, use of technology etc. in the absence of proper governmental policies are accentuating international inequalities. The report suggests a national programme to control MNC activities involving defining precisely their role, aims and operations in the Country as part of its national plan; a

gradual reduction of the percentage of foreign ownership, establishing joint government—MNC ventures and development of regional inter-governmental co-operation to deal with them. Second it proposes setting up a UN Commission under ECOSOC to evolve a code of conduct for both governments and MNCs on matters relating to investment, cost and use of foreign technology, taxation, nationalisation and compensation and setting up and running a World patent system to break the monopoly in patents purchases and transfers. Acting on these recommendations is essential for world monetary stability and trade expansion because of the decisive role played by the MNC in monetary transfers and the division of trade.

Agricultural Information Bank and ADB: Referring to the 500 agricultural information systems in our world which are unco ordinated and often overlapping, FAO proposes setting up a comprehensive international system. For Asia, a regional centre is being established in Manila to work with Asian national systems and FAO's international system. IDRC is supporting this effort to collect, organise, identify, index and disseminate agricultural information to all countries in the region. The Asian Development Bank (ADB) reports the grant of 6 loans to Malaysia, Thailand, Korea and Pakistan for $ 91 million for highway construction and industrial projects. It is expanding also its technical assistance on roads and irrigation.

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II Agricultural Development

Paddy and foodgrains:

The government procured 1.3 lakh tonnes of rice during the Samba season and at the end of June held a stock of a little over 1 lakh tonnes. Food grains output is likely to be less than the 71 lakh tonnes forecast in (Vol. IV page 285) Paddy production will probably be 53 lakh tonnes (See Vol. IV page 304) but coarse grains may be less than the 18.2 lakh tonnes target by 5 lakh tonnes. As noted earlier under the National section, rice prices were rising in June. As a consequence the government which till the beginning of June operated a procurement levy of 30 per cent in Thanjavur and 15 per cent in other districts and lifted all restrictions in foodgrains except in Thanjavur and Kanyakumari districts (See Vol. IV page 364), on June 8 lifted the ban on Kanyakumari, on June 11 withdrew the procurement levy on paddy rice and the ban on movements from Thanjavur district, reimposed the ban a week later on June 18 and on June 19 lifted the ban and imposed a ceiling on stocks—upto 100 quintals of rice or 150 quintals of paddy for wholesalers and 500 quintals of rice and 700 quintals of paddy for millers. The government was, through these means, during the month searching for means of bringing down the rising prices of rice. The price went up in Thanjavur from

Rs. 50 per 57 kg. bag and was stabilised at Rs. 58 per 57 kg. bag of second quality paddy and Rs. 2.50 per Madras measure. The suspension of free movement from Thanjavur had to counter the fact that in the one week of free movement 19,000 tonnes of rice moved to the border districts—Kanyakumari, Tirunelveli, Madurai and Coimbatore—for being smuggled out of the State, and so the movement was watched and the border posts strengthened. The result of these measures has been some fall in the price of rice, by 20 to 40 paise per kg. The basic problem is the shortage of foodgrains in neighbouring States and the rather tight foodgrain position in this State, plus of course the general inflationary situation. Meanwhile the delay in the South West Monsoon meant a low water level in Mettur, Papanasam and other reservoirs. Unlike last year, when water was released from June 25 for Kuruvai planting, this year the planting season may have to be postponed by a month. When transplantation had begun as in Tirunelveli—Papanasam stood at 28 feet against last year's 67 feet at June 23 and Mettur 21 feet against 91 feet, there will be loss to farmers and decreased Kuruvai yield. The government having purchased adequate wheat in Punjab and Haryana as noted earlier has fixed its price at Rs. 170 per quintal (wholesale) and Rs. 1.80 per kilo retail, sooji and rava at Rs. 2.35 per kg., maida at Rs. 2.30 and atta at Rs. 1.85. For the next year, the State government discussions with the Union Minister of agriculture will be based on increasing rice production from the present 53.55 lakh tonnes to 59 lakh tonnes, coarse grains from 13-15 lakh tonnes to 20 lakh tonnes and pulses from 2.1 lakh tonnes to 2.3 lakh tonnes through double cropping, using short duration at HYV paddy particularly ADT 30 and ADT 31. In addition the State plans to grow tapioca in 5 lakh acres in seven coastal districts-Kanyakumari, Tirunelveli, Ramanathapuram, Pudukottai, Thanjavur, South Arcot and Chingleput using the HYV topioca variety evolved by the Trivandrum Institute and for which a Union government credit of Rs. 20 crores has been requested. If this programme is effective it could double the food output of the State—topioca itself producing 100 lakh tonnes. The question is whether the people will use this food material.

Fertilisers :

An extra allotment of 9,000 tonnes of compound fertilisers from MFL and 4,000 tonnes from FACT to Thanjavur will help the Kuruvai crop. It is hoped that MFL stoppage due to the explosion to be referred to later will not reduce this allotment. Also the ICAR plan to economise on fertiliser application, use organic manure and intensive application of weedicide is being put into effect together with the setting up of mechanical compost plants to use the enormous amount of city garbage and the use of the 52 million gallons of daily sewage, of which only 6 million gallons are being used.

Groundnut :

The groundnut control order referred to in the last issue (Vol. IV page 438) was the subject of a court challenge by the traders in June. The government reached agreement with the trade for a voluntary surrender of 25 per cent of their stocks which the government purchased at Rs. 630 per quintal of groundnut oil and Rs. 230 per bag of 80 kg. of groundnut. The rest is to be sold anywhere in the State, but more probably outside the State. The result was a fall in the price of edible oil by 30-80 paise per kg. in June. The first reports from the neighbouring Andhra Pradesh on the crop insurance scheme referred to in the last issue, as applied to

160 groundnut growers of Kothapet are encouraging. The Andhra Bank has selected the farmers to whom, Rs. 400 credit per acre is given and the Vanaspati Manufacturers Association is supplying bacterial cultures and fertilisers. The farmer pays a premium of Rs. 40 per acre and the Insurance Corporation guaranteed yield is 320 kgs. per acre, which if not attained will be compensated at the rate of Rs. 2.50 per kg. 75 per cent of the beneficiaries are small farmers who have welcomed the scheme as in the 1972 drought they lost their entire crop.

Research results:

The Tamil Nadu Agricultural University released in June a new high yielding paddy strain which is of shorter duration than the popular CO-25 paddy. The drought resistant high yielding CO-25 was crossed with other IR varieties to yield this new strain which yields 50 per cent more in a shorter duration than CO-25. Also the University is planning to release a new long staple cotton variety—an improvement on Sujata which can be used to weave 120 counts. In horticulture, the University has developed a method of reducing the number of male papaya trees by transplanting 5–6 month seedlings of CO1 papaya after flowering. This reduces the number of plants to 2 per pit, reduces pests and disease and ensures one productive female plant per pit. The Agricultural Department has introduced a high fodder yielding Cholam COH-2 in the Coimbatore district, which is disease resistant and doubles the fodder yield at 4 tonnes per acre.

Coffee:

As forecast in the last issue (Vol. IV pages 439-440) the Wynad Coffee Growers Association itself decided to stop the so called closure by some 300 large and small estates which consisted of laying off labour by putting off the post picking operations. They had succeeded in getting the Kerala and Union Government's attention and that of the Coffee Board. The Board announced in June a final payment of 28 paise per point to the growers for 1972-73 crop, bringing the total payment for the season to Rs. 4.28 per point. In addition plantation and Arabica Cherry get a bonus. For the 1973-74 the Board has declared a further payment of 50 paise per point to large growers and 25 paise per point to small ones, making their total payments so far Rs. 3.50 and Rs 3.75 respectively. The Board has asked the Ministry of Finance to conduct a cost of production investigation to adjust the minimum release price on the basis of the findings. It will also stop the kind of excuse put forward by the Wynad planters on their closure effort. The Coffee Board will be exporting 2,500 tonnes beyond the 15,000 tonnes agreed upon to the Soviet Union this year. Czechoslovakia and East Germany have also asked for larger exports. In this State an agreement was reached between plantation managers and workers in mid June for an ad hoc wage increase of Rs. 13.50 per month involving disbursing Rs. 40 lakhs among a lakh of plantation workers in the first week of July. This interim relief action led to the withdrawal of the strike notice as of June 15.

Tea:

Due to drought conditions and inadequate power supply as noted in the last issue (Vol. IV pages 437-438) tea production in the Southern States declined by 1 million kg at 26.2 million kg. during the first four months of 1974 which was a slight improvement over the first quarter. This decline is serious because the South produces less than 1/3 of Northern plantations—100 million kg. vs. 350 million kg.

World tea production in the first four months also declined by 14 million kg. at 124.4 million kg. due to drought conditions, African production falling by 24 per cent and that of Sri Lanka by a similar percentage. The 1973 exports were higher than those of 1972 at 575.4 million kg., but Indian exports fell by 17 million kg. to 190 million kg. making Sri Lanka the largest exporter. Because of production shortfalls and increasing demand, tea prices were rising this year in London, Cochin, Colombo, Coonoor and Kenya by 9.84 pence per kg. for South India tea to 18.87 pence for Kenyan tea, the Cochin and Coonoor prices rising from 1.41 to 1.9 paise per kg. Todate South Indian tea prices have risen the lowest by 20 per cent (compared to Kenya's 30 per cent), but UNCTAD's forecast is that the tea prices will remain high throughout the year. Under these conditions Indian tea production should be assisted with the needed inputs so that it surpasses last year's 469 million kg. to achieve this year's target of 500 million kg. The meetings of the tea exporters group and the inter-governmental group on tea comprising 13 exporting and 25 importing countries in FAO in June moved away from the usual concentration on export quotas, agreeing quickly to freeze the 1974-75 global quota at 658 million kg. Their major decision was to set up a working party of 7 countries to develop a multi-dimensional international tea agreement which would: (a) ensure a minimum export price, (b) co-ordinate and regulate marketing to prevent stock build up in importing countries, (c) intensify global promotion, (d) expand auctions in producing countries, and (e) provide upto date tea market intelligence to producers. This is a great advance and can ensure the producers agreement on exports, marketing and prices that have been advocated in this Bulletin. It will also call for a permanent secretariat to help implement the agreement which the groups' next meeting in September should finalise.

Rubber :

Similarly India has become a member of the Association of Natural Rubber Producing countries along with 6 others to co-ordinate production and marketing and promote technical co-operation. The Rubber Research Institute announced a new hybrid—KR 11-20 which will yield 4,000 kg. of rubber per hectare and is arranging for its distribution to the plantations this year. The government has under consideration the Rubber Board's development projects costing Rs. 23 crores in the Fifth Plan under which replanting will be undertaken in 25,000 hectares out of a potential of 70,000 hectares.

Forestry :

In accordance with the recommendations of the Perspective Plan, the State government has decided to set up a Forest Development Corporation, with headquarters in Tiruchi to exploit the forest resource of the Tiruchi, Ramanathapuram, Pudukottai and South Arcot districts. It will develop 1.5 lakh acres to cultivate bamboo, cashew, casuarina, eucalyptus and set up a paper and rayon plant. It can also develop the much prized rosewood. The Corporation can be useful in settling the Sri Lanka repatriates.

Fish Farming :

In accordance with the State Planning Commission recommendation (See Vol. III page 503) the Tamil Nadu Fisheries Development Corporation set up in April with Rs. 3 crores capital is establishing a Rs. 1 crore liquid nitrogen freezing plant with Indian Oxygen to freeze shrimps and frog legs and increase their quantum and export price. It is expanding our foreign markets for marine products, developing the programme for mechanisation of boats and deep sea fishing research.

Dairy Farming:

Milk production and distribution in the State and the Country is lagging. In the Fourth Plan the per capita availability of milk fell to 109.6 grams per day compared to 113 grams in the Third Plan. With a cattle population of 23 crores this declining trend can be arrested. The State Government is taking legislative action to prevent milch cattle being sent to slaughter houses. Operation Flood is being extended to Madurai with the DDC running the pasteurisation plant and taking over the distribution scheme. The Punjab buffalo AC-285 with a 25 litre milk capacity should be introduced in the State along with a programme of cross breeding and an *integrated cattle cum dairy* development as recommended both by the State's Perspective Plan (Vol. III page 259), and the May Conference of States on Animal Husbandry in New Delhi (See last issue Vol. IV page 427). The WFP and UNICEF aid to Operation Flood can be more effectively operated in this Plan period and procurement and marketing of milk from the rural areas can be improved and tightened up.

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III Industrial Development

Salem Steel:

Strong feelings have been aroused concerning the seeming neglect of Salem Steel by the Union authorities, whose personal knowledge of the project is little, and whose allocation of Rs. 3 crores this year against a Fifth Plan allocation of Rs. 120 crores seems inexplicable. The various delays by the Union government and cuts in allocation might result in Salem joining the ranks of sick, unviable and badly planned public sector units. The chairman of SAIL's visit in June to Salem and the technical inspection of the work in progress and assurance that Salem will be given this year the funds it needs, it is hoped, might save the project which can replace the annual import of Rs. 15 crores of cold rolled stainless steel, meet the domestic needs of nuclear stations, chemical, machine building, dairy and food industry for stainless steel and export it to the oil rich gulf countries whose demand for stainless steel seems endless. The TWAD Board has set up a division to execute the 22 million gallon water supply from Cauvery to Salem. Another development is MMTC's sending 200 tonnes of Kanjamalai (Salem) iron ore to West Germany for laboratory tests to determine at what stage, if at all, low content iron ore can replace the richer haematite ore from Bellary-Hospet in the Salem Plant.

Neyveli:

The new element in the Neyveli programme is the Union Mines department's strong pressure on the Union Planning Commission to include the cost of Rs. 320 crores including Rs. 90 crores in foreign exchange for the second mine cut which will produce 7 million tonnes of lignite and feed a 1,000 MW power plant in the rewriting of the Fifth Plan. The foreign

exchange element could be reduced by using Southern Structurals and Larsen and Toubro for fabricating part of the equipment. There is no other way of meeting the State's serious power deficit and in view of the cost and delay in transporting coal, the Union Planning Commission and the State government are being asked to drop the 200 MW Tuticorin thermal project (See Vol. IV page 4 and 257). This seems like a counsel of despair with regard to use and transport of our coal resources and is in any case against the carefully developed power generation programme of the State's Perspective Plan. After quite unnecessary delay, a delegation visited West Germany in early July to negotiate the order for a bucket wheel excavator, a spreader and other machinery for the existing mine. The first machine will start work in December 1977 and the second and third in December 1978 when the output will be raised from the current 3.6 million tonnes per annum to 5.5 million tonnes in 1978-79 and 6.5 million tonnes in 1979-80. At present, with the oil firing of the second unit at the beginning of June, Neyveli is generating around 220 million units per month and fertiliser production increased from 31,000 tonnes to 60,000 tonnes. It is the briquette plant which is functioning at 10 per cent capacity and will move up to a mere 20 per cent because of the non-availability of lignite. The Corporation's finances which have registered a series of losses (Vol. IV pages 309-310) are being reorganised to convert Rs. 39 crores of loans into equity with a 3 year moratorium on loan and and interest payments and which can help in this year to operate without fresh losses. The real problem is the unviability of the fertiliser and briquetting plants at their present low capacity utilisation. Lignite production has become economical with a rise in the price and transport cost of coal, One tonne of coal costing Rs. 110 being more than the equivalent of 2 tonnes of lignite costing Rs. 85. This might help the decision on the second mine cut.

BHEL :

BHEL's production schedule for equipment to generate 1,800 MW this year is being disrupted by the non-availability of the 1 lakh tonne of steel it needs. SAIL has allotted only 25,000 tonnes and even this has to be transported by it because of the uncertainty of railway transport. Its imports of stainless steel tubes (22,000 tonnes) from UK and Japan are also uncertain, the delivery time being increased from 10 to 12 weeks to 15 to 18 months and the prices rising sharply. A similar situation is faced with regard to its steel castings needs. Given its good management and performance record, SAIL, the railways and STC should ensure the company a steady supply of its inputs.

MFL :

The explosion and fire in the Manali factory of Madras Fertilisers led to the closing of the plant for several weeks. One result was that the daily output of 700 tonnes of naphtha of the neighbouring Madras Refinery consumed by MFL for its fertiliser production had to be stored in the one week supply storage space in Madras Refinery. The rest has been distributed to other fertiliser plants or become part of the exports. MFL has had an accident free operation since its start and this explosion should be carefully investigated to prevent future incidents.

SIDCO and SIPCOT :

From June, SIDCO took over the administration of all conventional industrial estates, SIPCOT that of the developed plot estates and the functional industrial estates. This rationalisation

makes for better co-ordination and use of institutional finance for their setting up and functioning Also at SIPCOT's Ranipet Complex (See Vol. IV page 39) a Rs. 2 5 crore Southern Synthetics plant to manufacture 6,000 tonnes of formal dehyde was set up in June. Apart from the 15 per cent Union subsidy and interest free sales tax loan, it has loans from SIPCOT and Canara Bank of Rs. 39.5 lakhs. The unit which will become operational next summer will meet the growing demand for its product by the drug and resin units in the State. One project, the Calcrete plant at Ennore, which was referred to earlier in the State section and which has significance for the building industry, is not doing well as it is producing only 150 cubic metres of cellular blocks per day against a capacity of 500 such blocks. A technical committee is at work to help it reach capacity production by the end of the year and use more fly ash and lime at lower costs. The 300 foundries in Coimbatore employing more than 18,000 workers faced a serious problem under the June Steel distribution guidelines which fixed the allotment of steel and pig iron to the units on the basis of 1972-73 consumption. 1972-73 was the year of the 75 per cent power cut and Andhra agitation and if used as the allotment criteria would seriously impair their annual turnover of Rs. 35 crores of textile machinery, diesel engines, power pumps, electric motors etc. After discussions with the Union ministry of steel, adjustments were made to supply the units with adequate quantities of pig iron of which there is no shortage (in Bhilai alone 1.6 lakh tonnes is lying stocked up) and steel. A joint sector Rs. 25 crore project with Tamil Nadu Rubber is being set up in Ramanathapuram for the production of 5 lakh tyres and tubes by January 1976. The financing of the project by IDBI and ICICI is being finalised and orders for machinery placed. The unit should also set up an R & D cell so that there can be a beginning of tyre technology in the Country.

Sugar :

Sugar production in the State for this year is estimated at 4.5 lakh tonnes compared to last year's 3.5 lakh tonnes, mainly due to the excellent performance of the Co-operative Sugar Mills. Of the 16 sugar mills in the State, 7 are co-operatives which will be handling 18.5 lakh tonnes of sugar cane (43 per cent more than last year) and producing 1.65 lakh tonnes of sugar (50 per cent more than last year), working to 123 per cent of installed capacity. The private mills on the other hand report a sudden fall in the recovery rate in some cases to 6 per cent and have requested the Union Minister of Agriculture to increase the excise rebate announced recently (See Vol. IV pages 353-354). There seems here to be some emulation of the UP mills who have claimed and obtained such a concession. This State also exported in June for the first time 12,000 tonnes of sugar and 2 more export shipments are to be made—all from the co-operative mills. The government is setting up in the Fifth Plan, 11 more mills each with a crushing capacity of 1,250 tonnes of cane per day calling for an investment of Rs. 55 crores. This would enable a production of 6.6 lakh tonnes by 1978-79, a near doubling of capacity. The government has a budget provision of Rs. 3.25 crores as its contribution to the share capital. Another area that is likely to be expanded in all the Southern States is Khandsari sugar production. While producing the maximum sugar cane per acre, the utilisation of the 3 Southern States—Andhra Pradesh, Karnataka and Tamil Nadu—of cane to produce sugar is only 26, 33 and 34 per cent compared to Maharashtra's 90 per cent. Here the setting up of a network of Khandsari plants, each requir-

ing only Rs. 10 lakh investment can ensure fuller cane utilisation, provide increasing employment and feed a number of subsidiaries such as bagasse and molasses.

Sick Mills :

The discussion between the Union government and the States over the nationalisation of the 103 sick mills was continuing in June. None of the States is in favour of the Union ministry for Industrial development's proposal for NTC, restructured, allowing for 2 or more States to join in a regional corporation to which they could contribute 49 per cent of the equity, to be responsible for the mills. Maharashtra, West Bengal and Tamil Nadu want that the mills be nationalised by the State Corporations because of their experience and expertise. This State also points to the yarn availability and the price factors which are important for the handloom industry and people in the State. The Union ministry's position is that this would require amendment to the Industrial Regulation and Development Act, that most States do not have the resources to nationalise the units and that questions of textiles production, modernisation, priorities etc. are all-India matters. It is hoped that some formula will be found for vesting the economical and efficient management of the units in the State. In the meanwhile the Act has been amended to enable the takeover period to be extended to 18 years, as one of the mills in UP has been taken over for the present limit of 15 years.

Handlooms:

The 60 per cent power cut reduced yarn production in the State by 26 per cent in May. Yarn for the decentralised sector was reduced to 72,200 bales of 180 kg. each. As against the handloom exports of Rs. 60 crores in 1973-74, it is feared that this year's export may be around Rs. 55 crores because: (a) the price of handloom goods has gone up by 50 to 55 per cent. Foreign buyers are prepared to pay 20 per cent more but that is their limit. For handloom producers yarn has increased in price by 40-45 per cent in the 3 months as have the cost of dyes, chemicals and labour. (b) the export subsidy has been cut from 25 to 3 per cent since last October (See Vol. III page 581). (c) The export market is falling. Sweden is reducing its demand and asking for lower prices for ready made garments, which have had to be switched to US, UK and Australia. Japan has also reduced its Rs. 3 crores demand, and the markets in the US, Europe and Africa have slackened. There is need for a special export drive for handlooms.

Private sector reports :

The 1973 report of Madras Aluminium is somewhat depressing as the 75 per cent power cut in that year resulted in a six months shut down and a loss of production of 5,500 tonnes and involving heavy costs in starting up the pots. Ploughing in Rs. 5 crores of its resources for capital expenditure, resulted in lack of cash, resort to accepting deposits and postponement of loan repayments to the banks. Even in 1974 only 40 per cent of the plant has functioned and with the 60 per cent power cut the prospects are not bright. Rolled products worked to 50 per cent capacity only. With the rise in price decided by government of Rs. 1,090 per MT, the company can produce profitably when the power situation returns to normal. Its commercial grade aluminium is now under government control and its distribution to the 500 small industries in the State should be ensured by the government. Aluminium faces a very tight sellers market internally and internationally and the production potential of MALCO should be fully exploited at an early date. The 1973 report for Anglo

French textiles shows a good record of production and sales. Production of yarn increased to 8.8 million kg. (7.8 million kg. in 1972) and cloth to 46.1 million metres (43.3 million metres in 1972). Both domestic and export sales expanded and plans for adding 12,400 spindles and 72 looms at a cost of Rs. 4 crores drawn up. The dividend was maintained at 15 per cent. Sri Ramakrishna Mills's annual report for the year ending March 1974 also records a good performance with the turnover at Rs. 2.76 crores and a gross profit of Rs. 65.35 lakhs. 1973 was a good year for the textile mills who also had a sellers market.

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IV. Education, Science and Health

Unrest in Educational Institutions :

With the start of the school year in some States and its end in others, unrest, agitation and violence returned to educational institutions in 5 States. Gujarat saw the student movement split as some of its members continued their anti-price rise agitation and others felt that this should be done by another organisation. In Bihar and Assam, students were involved in bandhs, gheraoes, picketing, strikes, in the former State for dissolution of the legislature, and to fight inflation and corruption and in Assam in support of a 21 point demand, resulting in looting, stoning, police charging, arson, curfew and violence. In Bombay the National Students Union's violent demonstration against black money and corruption led to arrests. In two instances exams led to unrest. In Allahabad a stiff B.Com. paper set students off on a rampage of breaking and burning college property, hijacking buses and vehicles and boycotting of exams. In Marathwada the agitation led the Vice-Chancellor to postpone exams to early July and give in to student demands that failed students should be allowed to keep terms. In Kerala the opening of schools and colleges had to be postponed because of student strikes and some violence on account of high prices of books, their unavailability and the demand for subsidised food and cloth. A recent survey by the Economic Times in Bengal shows huge profiteering by exercise book makers, who are making profits of Rs. 2,000-Rs. 3,000 per tonne of paper at the cost of students and their parents. Also schools are opening before the text books are ready. The Karnataka government is setting up a text book corporation for the timely publication and distribution of textbooks. The task is enormous—391 text books in 20 million copies, with 250 new books because of the revised syllabus. Here the student is caught between profiteering of some in the book trade and the bureaucracy and slowness of the governmental effort.

Educational Reform :

The major educational reform proposal was the call of President Giri on the occasion of laying the foundation of Lala Lajpat Rai Bhavan in Chandigarh on

June 26 "for a one year holiday from the University" after completing matriculation for the students "to work on the land and operate cottage industries". Similarly the M.P. Chief minister is using students in batches of 100 in each district to dehoard wheat and to curb smuggling. Also it was the students in that State who saved the State buses from being burnt in a fire in their sheds caused by sabotage, during the transport workers strike and provided efficient running of the buses during the strike. Again the record of the Army Educational Corps during the past 27 years demonstrates how soldiering and education from primary to post graduate level as well as a wide variety of adult education activities like foreign languages learning and map reading can go on side by side. On the more classical reform side, Calicut University has made a head start in examination reform, involving 50 per cent of its 2,000 teachers and student representatives in its 6 months of seminars and workshops, resulting in increasing the frequency of examinations, changing the design of the question paper, setting up a question paper bank (for the pre-degree chemistry alone, there are 2,000 questions in the bank) and a rather half hearted system of internal assessment because of student opposition. There are 2 second generation problems here. First even for this reform to succeed, there must be the desire to learn and the aptitude to teach and second there must be a comprehensive test at the end of a course. The UPSC is also examining its examination procedure and the Kothari Committee that it has appointed should examine the type of examination held so that it is not a repeat M.A. exam but one which tests originality and capacity for improvisation, with greater emphasis on personality tests. The Kerala government is planning an education cess on the basis of the income of parents and to which all including the scheduled and backward classes will be subject as a means of meeting the mounting costs of education. This is an interesting way of substituting for fees recommended by the Perspective Plan in this State. The UGC has stated that it accepts the request of the Tamil Nadu government to start one or two new universities to ease the pressure on Madras and Madurai Universities which have 178 colleges affiliated to them (See Vol. IV page 380), but does not accept the demand for a University of Technology because of the wish to make the good engineering colleges autonomous. But this is precisely what the State Plan envisages and it is for this that the Madras University of Technology is needed. Evidence is accumulating of a good healthy trend in the Country of a fall in college enrolments—except in Tamil Nadu, Kerala and Karnataka. In this State the rush for admissions continues and many private colleges which are financially unviable meet their problem by collecting donations from students ranging from Rs. 1,000 to Rs. 3,000. This is a vicious system open to many abuses and should be replaced by a fee based college education system in the State—the government grant covering only scholarships for the poor and some development projects. In Bihar, Maharashtra and West Bengal on the other hand there is a steep fall in the college enrolments because of the realisation of uselessness of college education for employment, the increasing prices of books, hostels and living and as a result if some of the colleges are closed down and others upgraded it would be a right development. Another cause for the slump is the checking of cheating in examinations in Calcutta. The heartening part is that more and more of SSLCs are going in for vocational courses instead of to universities. Even in this State many of the new and small colleges report large vacancies in their enrolment capacity, This should lead to their closure and the government not opening new colleges.

Technical Education :

The programme to convert 75 ITIs in the Country into captive institutes to suit the actual specialised industries, involving the selection of trainees jointly by the industries and the ITIs will improve the employment of their trainees in the industries. Also the improvement of the apprenticeship training, the special programme for the preparation and dissemination of instructional material through correspondence courses and the diversification of basic training facilities will bring about a closer match between employment opportunities and skill formation. The recommendation at the engineers seminar in Madras for setting up an Engineering Reforms Commission to promote greater efficiency and proper application of modern techniques of construction and design is important and would supplement the reform proposed by the ARC (See Vol. III pages 776-777). The Union government set up two committees in June to assess the facilities in the 6 medical colleges in Karnataka and 2 in Andhra Pradesh that the IMC has recommended for derecognition (Vol. IV page 382).

Science :

In mid June, the two volume Science and Technology Plan for 1974-79 was released by the Union minister of Science and Technology on behalf of NCST, the approach to which was summarised in Vol. III pages 194, 268 and 359). Its basic approach is that conceptually, methodologically and institutionally the Science and Technology plan formulation and implementation is an integrated part of the Draft Fifth Plan, that the process is an inter-related one of the two plans and that it deals with Science and Technology and not merely with Research, Design and Development. The third section of Vol. I and the entire Vol. II elaborate the projects in 17 sectors—(1) Natural Resources, including forest, land, soil and wild life, water, minerals, oil and gas, surveys, geographical sciences and marine resources, (2) Metallurgy, (3) Fuel, Power, Coal, (4) Mining and Steel, (5) Special materials, (6) Machine Tools, (7) Heavy Engineering, (8) Chemical industries, (9) Consumer industries, (10) Khadi and village industries, (11) Wastes recycling and use, (12) Housing and Urbanisation, (13) Family Welfare and Health, (14) Transportation, (15) Research support, (16) Information and (17) Environmental quality—and in 7 government departments—(1) DST (2) ICAR (3) DAE (4) Space (5) Electronics (6) ICMR and (7) CSIR. In the oil and Natural Gas sector, on the basis of the results of the techno-economic feasibility study showing oil production increasing from 3 million tonnes to 8 million tonnes in 5 years and 18 million tonnes in 10 years, 7 R & D projects are proposed at a cost of Rs. 1,696 lakhs. In the water sector, for the integrated development of surface and ground water, 20 projects are proposed at a cost of Rs. 9,325 lakhs. In marine resources there is an important section on offshore oil exploration and on the assumption of producing 10 million tonnes per year in the next 10 years, a Rs. 3.1 crores R & D project in offshore technology is proposed, within the Marine Resource R & D of the Rs. 3,224.8 lakhs programme. In fuel and power, the updated projects are the 500 proto-type unit, a power technology development board, magneto hydro dynamics, fuel efficiency, institute for energy studies, solar, tidal, wind, geothermal and chemical energy, aero-gas turbines for power generation, coal utilisation and carbonisation, coal slurry pipe line and better use of thermal stations at a cost of Rs. 18,289 lakhs. Under the consumer industries programme, the textiles project is not very impressive, the food projects are secondary to the major R & D work of ICAR and the other areas covered are

sugar, leather, salt, tobacco and photographic material—not a very impressive list. The projects in Khadi and Village industries are well developed around the technology in Khadi, village industries, material construction, silk and coir and the mobilisation of academic institutions for rural development—all totalling Rs. 1,775 lakhs. The programme includes the Tamil Nadu Committee on Small Industries to update their technology. The projects in water use and recycling are also important at a small cost of Rs. 1,350 lakhs. The financial outlay of the total plan was originally Rs. 1,725.61 crores but on the basis of the Draft Fifth Plan resources and allocations has been reduced to Rs. 1,033 crores. The Draft also points out that in addition to this Plan outlay, there is a non-Plan expenditure and Developmental Defence expenditure of Rs. 800 crores, making a Science and Technology outlay total of Rs. 1,800 crores. On somewhat shaky grounds, the draft assumes that the private sector which is now spending Rs. 20 crores in 1973-74 on R & D will spend Rs. 300 crores during the Fifth Plan and on even shakier grounds it assumes that the States have expended Rs. 100 crores in the Fourth Plan and will spend Rs. 200 crores in the Fifth Plan. Even more serious, it states that the State Plans for Science and Technology will have to be financed from State Budgets. The Tamil Nadu R & D plan assumes that the Union government will finance 70 per cent of the Plan expenditures (See Vol. IV page 310). This is contradicted in the Draft Plan and it means that there will be only Union government R & D without any roots in the States realities. The draft Plan is a good first start: it should be filled in by the specialist groups, the Union scientific agencies and the States. And the budget must be incorporated in that of the departments, ministries and states. The precise total outlay, Rs. 1,350 crores net, Rs. 1,800 crores gross and Rs. 2,350 crores with the private sector and States, does not matter. In the exercise now being undertaken by the States, Union ministries and departments and the Planning Commission, the projects on agriculture, power and fuel, marine resources and Khadi and village industries should be safeguarded and speedily launched. CSIR announced in June a scheme for its scientists to set up industries with the know-how generated in the laboratories, and for which they will be granted leave. The details of financing and credit must be worked out and it will be one way of drawing the laboratories and industries closer and introducing innovative entrepreneurship. The Government is also establishing a Central Marine Design and Research Organisation at Vishakapatinam to accelerate the process of ship building design. The Thumba rocket test and 300 kg. Indian Scientific satellite to be launched by the Soviet Union are preparatory to India launching its own satellite.

Health :

The Country has regressed in certain communicable diseases. In smallpox 80 per cent of the world cases occur in India, and Bihar is the centre of infection with 60 per cent of the world incidence, spreading to UP, MP, Orissa and West Bengal. The Union government has provided for eradication of the disease in the Fifth Plan and this should be accomplished. Similarly malaria cases which had declined from 75 million from before independence to 1,50,000 in 1964 has now increased to 1.5 million. While it is true that mosquitoes have developed immunity to the DDT spray, the main reason for the revival of malaria is that the preventive and public health aspects have been neglected. The Perspective Plan of this State makes provision for this kind for eradication in the Fifth Plan. On the family planning

programme, the Union government decided in June to supply oral pills free of cost to all users in the urban centres and community medical services. The work of the Madurai contraceptive testing unit is slowing down, due to lack of slides for testing the effect of the loop on cancer and also because of administrative lapses. These lacks should be made up as the unit is the only one functioning in the State. The State government is also acting on the Union government's advice to transform in a phased manner existing basic health workers, vaccinators, family planners, health assistants and inspectors into multi-purpose health and family planning workers.

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V. Employment

Further to the employment exchange figures as at December 31, 1973 reported in Vol. IV pages 384–385, the Union government released the figures of those registered with the exchanges as at 30th April 1974 as 81.6 lakhs—a 1 lakh increase in the four months. As compared to 72.7 lakhs registered in April 1973, there has been a 12.2 per cent increase in job seekers. ILO's Director General computes that unemployment in India and Asia is rising to a point where by 1980, 800 million more jobs will have to be created in Asia. The Union government through various employment agencies is engaged in a long term programme of surveying the precise number of unskilled, semi-skilled and skilled unemployed. The area skill surveys of Bangalore, Ludhiana and Gorakhpur have been completed. They have now been extended to 12 more districts where the data is being processed and compiled. A further survey to adjust employment exchange statistics to identify how many are jobless and how long it takes for a placement to be obtained is under way through personal interviews of a sample of 1.2 lakh registrants. Aiso a survey of the employment pattern of graduates, post graduates and Ph.D's and Diploma engineers to establish their employment profile which was begun in 1968 will be completed this year. The information from these various surveys will enable the Union and State governments to improve their employment policies. On employment generation, for this year the Union Planning Commission is getting the State governments to concentrate on self generating employment schemes for unemployed engineers and graduates. One programme will provide in plant training for the educated unemployed who during the training will receive monthly stipends of Rs. 100 for matriculates, Rs. 150 for graduates, Rs. 300 for post graduates, Rs. 400 for architects and engineers, with priority for those registered at the employment exchanges on or before December 31, 1972, those with unemployed fathers and scheduled and backward classes. The margin money is provided by the Union and State governments and the credit from Banks. The scheme which aims at changing the attitude to work covers self employment in industrial estates, agro based industries,

solar gas plants, agro-service centres, animal husbandry, poultry, piggery, fishery and dairying. Another survey proposed by the All India Council of Technical education is in relation to the under-employment of engineers. While the supply of engineers is already determined for the Fifth Plan by those now in engineering colleges, the admissions for the Sixth Plan can be regulated on the basis of the results of this survey, discipline-wise, industry-wise and state-wise. In fact given the serious current under-employment of engineers, the results of the detailed job requirements of various personnel can regulate admissions at the end of the fifth Plan. This State's first group of 23 graduates coming from 7 districts completed their dairy training at the end of June. They will be setting up dairy units on their own land or at the Madhavaram Milk colony. The State Bank of India on the basis of this training and feasibility reports will be financing each of them to the extent of Rs. 60,000 to Rs. 65,000. TNDDC will provide veterinary and marketing services so that the per capita earning in the first six months will be Rs. 400 per month. This successful programme is being extended to the second training programme, to which 47 graduates have been admitted.

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VI. Other Items

Indian Economic Association :

In a second communication to members of the Executive Committee, the President and Secretary of the Indian Economic Association informed them about (a) arrangements for the Annual Conference (b) the Seminar on improvements in the teaching of Economics (c) the completion of the work on the legal status of the Association in being registered as a charitable trust (d) the number of new members who have joined, (e) the financial situation of the Indian Economic Journal, (f) the arrangements for the visiting economists, (g) the arrangement for the representation at the International Economic Association, (h) the draft programme and budget for 1975, and (i) arrangements for the 1975 Conference. The fourth and final meeting of the constitution sub-committee was held in Madras in the Institute on June 19 when the draft constitution and draft rules of the Association were finalised and circulated to the Executive Committee and Association members on the 8th of July. The President, the Honorary Secretary and local Secretary met on June 11 and established the programme for the Annual Conference and Seminar.

Andhra University Social Science Review Committee :

The final meeting of the Andhra University Social Science Review Committee was held in Madras on June 8 and 9 in the Seminar room of the Institute, with the Vice-Chancellor and the Registar and on the 8th with the Heads of the 8 departments. The Chairman had circulated a draft report which was reviewed and adopted. The review report calls attention

to the sound record of post-graduate teaching and research of the social science departments, some of which have attained national stature, recommends a programme of inter-disciplinary research and teaching, proposes alternative machinery for it in the form of an Institute or a cell, proposes administrative decentralization to the departments and means of improving the semester and internal evaluation system. It also recommends consolidation of the outstanding Economics Department, separating Social Work into an independent department, and the reorganisation of the Department of Commerce and Business Management. It estimates the financial implication of its recommendations as of the order of Rs. 10 lakhs a year recurring during the Fifth Plan, and Rs. 8 lakhs for building and calls attention to the question of priorities in university education in the Country.

Tamil Nadu Council of Historical Research :

The Second meeting of the Council was held on June 15 at which two more fellowship holders were selected for the year, as two of the four selected at its first meeting (See Vol. IV page 391) could not accept the fellowship this year. The Council also laid down conditions for the responsibility of the fellows and the form and manner of the publication of the reports.

Bookmen's and 'Y' Clubs :

A meeting of the Bookmen's club in June reviewed the present standard of reading in the Country in light of the statistics on book publications contained in the UNESCO statistical year book for 1972. The growing gap between the supply of paper and newsprint and the demand for it was noted, together with the need for UNESCO and UN to take international action to bring about a more equitable distribution of paper and newprint supplies. The problems of reading faced by the adult illiterates, the school drop-outs, the neo literates and the educated were reviewed and action to meet these needs proposed. At the 'Y' Club there was an interesting discussion on the Fifth Plan and the state of the economy. The major points which emerged were the need to stimulate investment, to accelerate agricultural and essential goods production, to improve and rationalise the distribution network and curb the growth of money supply.

Documentary Films :

A local producer, Krishnaswamy Associates, has produced an outstanding documentary, 'I' which portrays the contradictory situation of the average Indian inheriting a great civilization, living today in poverty, having outstanding scientific talent with which giant industries have been set up, yet living for the most part in want, running the world's largest democracy and yet riven by casteism and corruption, but who faces bravely his future. After the film, a more ambitious venture, the production of 15 films of 30 minutes each under the title 'Indus Valley to Indira Gandhi" was inaugurated on June 18 in the presence of the Union minister of Information. This series will present a panorama of Indian culture and civilisation from the days of Harappa and Mohenjodaro to the present.

Special June Seminar :

Mr. V. J. Ravi Shankar, one of the Research Officers of the Institute, presented at a Special Seminar in the Institute on June 21, a paper on "Educated unemployment and the significance of educational requirements of jobs". Differentianting between the Welfare aspect of primary schooling and the production orientation

that should infuse higher education, the paper set forth outlines of a study that would investigate the matching of jobs with the skill qualifications necessary for each of them. It is proposed to publish the paper in a later issue of the Bulletin together with a summary of the discussions.

July Development Seminar :

The paper for the July Development Seminar, **Industries in the Fifth Five Year Plan in Tamil Nadu**, by Dr. V. C. Kulandaiswamy, *Director of Technical Education, Madras*, together with a summary of the discussion of the paper at the Seminar held on Thursday, July 25, in the Seminar Room of the Institute under the Chairmanship of Mr. C S. Mahadevan, formerly Secretary to the Task Force on Large Industries, State Planning Commission, appears as the first article.

Second Article :

A paper on Agriculture in the Fifth Plan appears as the second article.

INDUSTRIES IN THE FIFTH FIVE YEAR PLAN IN TAMIL NADU

By

Dr. V. C. Kulandaiswamy

Director of Technical Education, Madras

1. General

In the industrial sphere, India is an emerging giant. She is developing rapidly into a sophisticated industrial economy with a diversified base. Agriculture, animal husbandry and ancillary activities contributed only to 46.4 per cent of the net domestic product in 1973-74 against 47.4 per cent in 1969-70, and 50.2 per cent in 1950-51. But manufacturing activities (including mining and quarrying) accounted for 23 per cent of the net domestic product in 1973-74 against 19.9 per cent in 1969-70, and 17.1* per cent in 1948-49. Industry, therefore, is becoming more and more important in the national economy. We are, today, in a position to manufacture some of the most intricate and sophisticated equipment and machinery like computers, high precision ball-bearings, watches, aero-engines and a large set of most complicated defence equipments. All the major electrical items for domestic and industrial use are now being manufactured in the country and major industrial machinery for textiles, cement, paper, chemicals, pharmaceuticals, construction and a host of other plants are now indigenously produced. A wide range of industrial chemicals, basic drugs and pharmaceuticals, many of which had to be wholly imported in the early sixties are now being produced in the country.

These changes have also brought in their chain, certain major changes in the administrative machinery, managerial and supervisory manpower and in the economic organisation.

An important aspect of this development is the significant role of the public sector. The Central Government undertakings have increased from five, with an investment of Rs. 29 crores in 1951, to 97 with an investment of Rs. 4,680 crores in March 1971. In designing and development too, this sector has made substantial contribution. Another significant change relates to the pattern of management. With the opening of Management Institutes, qualified and triained management personnel are being utilised fully in the public as well as in private sector units. In fact, They are fast replacing proprietor managers. Yet another far-reaching change relates to the participation of workers' representatives in the Boards of Management.

The effects of these changes in the structure of our industrial sector are reflected in our pattern of trade. Many items which were imported in bulk during the late forties and the early fifties are either not imported at all or imported only in small quantities as most of our requirements are now met indigenously. These include fertilisers, explosives, lime, cement, clay refractory, construction material, commercial vehicles, tractors, automobile ancillaries, wire ropes, alcoholic beverages, cotton fabrics, art silk yarn, motor oils, kerosene, fuel and lubricating oils,

* Economic Times - Annual Number, 1973.

textile machinery, sugar machinery, air compressors and air-conditioning and refrigeration equipment. In fact, a number of industrial products which were formerly imported are now exported.

2. Three Distinct Stages.

The developments in the last twenty years clearly reveal three distinct stages in India's industrial progress. In the first stage, India inported machinery and tools of manufacture and produced consumer goods. In the second stage, she manufactured capital goods with imported know-how and produced consumer goods. The purchase of know-how was achieved through nearly 4,000 collaboration agreements that the country entered into with the Governments or firms of developed nations. In the third stage, India invested money on developing indigenous know-how and design technology which was developed in our industrial laboratories. These stages apply to the nation as a whole and also to the States. The industrial development of Tamil Nadu in the planning era reveals more or less a similar pattern.

Planning Era in Tamil Nadu

The first plan aimed at providing a base for rapid economic development, on an outlay of Rs. 86.04 crores; but actually a sum of Rs. 80.39 crores only was spent. Agriculture was given top priority. A sum of Rs. 9.57 crores for agricultural programmes and Rs. 50.43 crores on irrigation and power were spent and these formed, on the aggregate, about 75% of the total outlay. A programme of industrialisation with a modest outlay of Rs. 1.53 crores on industry and mining was initiated.

The second plan envisaged an outlay of Rs. 152.72 crores; but the actual expenditure was higher at Rs. 187.76 crores. The main emphasis in the second plan was on widening and strengthening the industrial base of the State through power development and increasing the food production to attain self-sufficiency. As much as Rs. 14.08 crores was spent on industry and mining.

The two Five Year Plans contributed greatly to expansion of the economy and this was reflected in the significant increase in the State income, which rose to Rs. 1,129.56 crores in 1960-61 from Rs. 774.92 crores in 1950-51 (both at 1960-61 prices). During the decade, 1951-61, the State income registered a growth rate of 3.9% compound per annum as against the 3.5% annual rate of growth of national income. The per capita income in the State rose from Rs. 257 to Rs. 335 (at 1960-61 prices) showing a 2.7% compound rate of growth per annum.

Though the Third Plan envisaged an outlay of Rs. 291 crores, the actual Plan was substantially over fulfilled in financial terms and the total expenditure aggregated to Rs. 348 crores. A total of Rs. 266.18 crores was spent during the Annual Plan period 1966-69. While the Fourth Plan provided for an outlay of Rs. 623 crores, the Union Planning Commission approved only an outlay of Rs. 502 crores. The latest figures put the actual outlay at about Rs. 560 crores.

The Fourth Plan took note of the concentration of industrial development in certain parts of the State, and the lopsided development in respect of the types of manufactured goods. An attempt was made to bring about a balanced development through dispersal of industries with emphasis on location of industries in backward areas and diversification of industries through greater attention to the field of electronics, plastics, chemicals and fertilisers in which the development in the State has not been significant.

A review of the industrial development in the State will show that there are three major groups of industrial entrepreneurs in this venture:

(i) Public sector with State/Central Government undertakings.

(ii) Private sector.

(iii) Joint sector with State and private sector participation.

The State Government has extended considerable help to the private sector by providing infrastructure facilities, cheap power and credit facilities. Apart from the incentive to private enterprise, the State has also embarked on its own, for the first time, in development and promotion of large sized industrial units, through the Tamil Nadu Industrial Development Corporation. The two fully State-owned enterprises under the TIDCO, namely, the Continuous Steel Casting Plant at Arkonam, which was set up at a cost of Rs. 8 crores and the Alangulam Cement Plant set up at a cost of Rs. 4 crores came into operation during this period. The State has also given a lead to fostering the concept of a joint sector and the State Government through the Tamil Nadu Industrial Development Corporation has participated in the preference and equity capital of the Southern Petro-Chemical industrial Corporation, Tuticorin one of the biggest fertiliser plants in the country, located in an industrially backward region of the State. The estimated cost of this project is Rs. 90 crores. This is expected to give a fillip to the industrialisation of the Southern districts. Besides, a large petro-chemical complex is proposed to be developed in this region.

The Tamil Nadu Industrial Development Corporation has also received Letters of Intent for 13 industrial ventures. These industrial projects are to be implemented either as joint sector projects or as wholly State-owned ventures. The Tamil Nadu Industrial Development Corporation has, in addition, applied to the Government of India for Letters of Intent for 11 other industrial projects.

Another important move in the direction of Government participation in industrial development was the modernisation of sick textile mills taken over by the Tamil Nadu Textile Corporation. Though the speed with which the Salem project is being implemented is rather slow, considerable progress has been made and the State Government has been extending all necessary help particularly in the matter of acquisition of land for the project. The State Industries Promotion Corporation was set up in 1971 with a view to helping promotion of industries in backward areas by giving financial assistance, providing locational guidance service for setting up of industrinl units as also for implementing the incentive schemes of the State Government. Besides, the State Government has actively helped private enterprise to set up industries in the State (particularly) in the backward districts of Ramnad and Dharmapuri and also in the neighbourhood of Madras City. Mention may be made of the establishment of a Carbon Black unit of Kamanis, Nagpal Ambadi unit, to manufacture transformer oil and speciality oil, and the Nylon Tyre cord unit of DCM. The State Government have been directly responsible for attracting these major investment units to Tamil Nadu through offering land and other facilities and by providing other incentives.

4. Growth Rate

The growth rate of GNP in the developing countries during the First Development Decade (1960-70) indicates that except India and Indonesia, the rest had achieved the target of 5% growth rate envisaged. The ostensibly weak physical

resources base of Tamil Nadu, its inferior coal and iron ore, scanty metallic minerals, shrinking forests, near exhausted water potential and chronic power shortage may appear to impede a rapid economic transformation of the State. But the performance so far reveals that Tamil Nadu has established a record in growth supremacy in certa in sectors of its economy.

The industrial development of Tamil Nadu prior to the introduction of the Five Year Plans is not quite considerable. The earliest development of infrastructure was in the form of hydro-power projects. This was followed by the advent of spinning mills and the development of foundries in Coimbatore and Madras. A real beginning in industrial development was made only in the planning era.

The growth rate of GNP in Tamil Nadu, sector-wise, after the State was reorganised is as follows:

G. N. P. in Crores of Rupees*

Sectors	*1955-56*	*1960-61*	*Percentage growth*	*1970-71*	*Percentage growth*	*Percentage growth rate 1955–71*
Primary	316.8	578.0	12.8	996.6	5.6	7.9
Secondary	123.0	167.0	6.3	444.5	10.99	9.4
Tertiaty	292.5	365.8	4.6	932.2	9.8	8.0
Total	732.3	1,110·8	8.6	2,373.3	7.8	8.1

It is seen that the growth rate has been consistently higher than 4.5% in all the sectors since the year 1955–56.

It has been estimated by the Institute of Techno-Economic Studies that between 1955 and 1972 the rate of growth in agriculture had been remarkably high, ranging from 13% to 22%, with marginal negative growth rates in years of drought. In the secondary sector also, there had been consistently higher growth rates, ranging from 6 to 19 per cent. It is remarkable that inspite of power shortages and raw material scarcity, the growth rate of this sector in the last 16 years was at no time less than 6%. The contribution of the industrial sector to State income rose from Rs. 98 crores in 1950-51 to Rs. 181 crores in 1960-61 and further shot up to Rs. 292 crores in 1970–71 at constant prices. In percentage terms, the contribution of the industrial sector rose from 15 per cent of the State income in 1960-61 to 18.7 per cent in 1970-71 achieving an overall secular rate of growth of about 6 per cent per annum.

The trend of growth of industrial production in the State reveals that the manufacture of electrical machinery, apparatus and appliance had increased five-fold in the decade 1961–71. Similarly, the manufacture of machinery except electrical machinery had trebled. The same was true with rubber products. Manufacture of chemicals and chemical products more than doubled in a decade though these are late-comers to the field. Food manufacturing industries have also more than doubled their output. Manufacture of transport equipment increased by one and a half times and the index for miscellaneous manufacturing industries showed

* Second Tamil Nadu. 2000 A.D. Institute for Techno-Economic Studies.

a fluctuating trend while production index rose to 175 in 1968 and then declined to around 110. Cotton textiles, however, increased only by 25%.

In the Fifth Plan, this group together with automobiles and computers will act as growth leader in the industrial sector. There was an indication that the basic industrial chemicals including fertilisers may lead the other groups with an annual average growth rate of 21.3 per cent at current prices. However, the position is becoming bleak with the advent of the oil crisis. The prospect of the development of Tuticorin Petro-Chemical Complex is receding into the background. As it is, the Salem Steel Plant too may not go into stream before the end of the Fifth Plan. That being the case, the current plan will have to lay stress on the development of industries which do not involve raw materials transported over long distances or heavy uses of Power or mineral resources.

5. The perspective for the Fifth Plan*

The emphasis of the Fifth Plan will have to be on the expansion of existing units and promotion of agro-based and processing industries as the scope for extension of irrigation facilities is limited. There may even have to be a change in the pattern of agricultural production with a view to increasing the yield of commercial crops and enabling a faster growth of agro-based industries. The accent will, of course, have to be mainly on the establishment of processing industries and also on such of those mineral-based industries as can function successfully with intensive exploitation of available mineral resources. Apart from the agro-based industries there is bound to be faster growth of bigger industries in the area of sugar, textiles, paper and cellulosic and mineral based fibre industries. As a result, the States' industrial sector will become more broad-based and integrated with the new industries such as the Petro-chemical industries. The mechanical engineering industries, particularly, will gain special momentum with the completion of the Salem Steel Plant by the end of the Fifth Plan. Also, there is greater scope for the growth of electrical and electronic equipment industries and chemical industries. The output of fertilizers too will be increased substantially with the expansion of the capacity of the two existing big units and the establishment of a third large-sized cost based unit.

With the Central Sector assuming a bigger role following the advent of the Salem Steel Plant and the State Government implementing its own expansion schemes and joint sector projects, many new industrial complexes will spring up in the different parts of the State with some of the existing complexes assuming greater importance. The Salem Steel Plant, by itself, will have a catalytic effect on the development of the mechanical engineering industries while the expansion of the High Pressure Boiler Plant at Tiruchirapalli should lead to the promotion of many ancillary industries. In view of the fact that its capacity will be more than trebled in the two plan periods, a large seamless pipe plant will have to be erected also in the Central Sector, either in Tiruchirapalli or in Salem. The setting up of Central Sector units for the manufacture of telecommunication equipment, electronic components, special cables and other items is also suggested.

The State Sector will be increasing its output of billets, sponge iron, cement, fertiliser and other items besides contributing substantially to the development

* The Perspective Plan for Tamil Nadu, 1974–84.

of joint sector projects through the Tamil Nadu Industrial Development Corporation (TIDCO) and the State Industries Promotion Corporation of Tamil Nadu (SIPCOT). The Tamil Nadu Industrial Investment Corporation (TIIC) may be expected to extend liberal help to the existing and new industries in the private sector. The modernisation and expansion of mills taken over by the Government will be the responsibility of the Textile Corporation.

The perspective plan document provides for an outlay of Rs. 680 crores for the Fifth Plan (1974-79) for industries envisaged in the State, Central, Joint, Private and Co-operative sectors. Out of this, Rs. 60 crores will constitute the State Government's allocation for the projects of the State sector, inclusive of its share in Joint sector projects; Rs. 375 crores for the Central Sector Projects and Rs. 245 crores for the private sector.

The State Government's allocation of Rs. 60 crores will be on the following projects:

(1) Sponge Iron Plant
(2) Concast Plant expansion
(3) Tamil Nadu Cement Expansion
(4) Share capital assistance to Textile Corporation
(5) Industries in the Co-operative Sector
(6) Salt-based Industries
(7) Assistance to SIPCOT
(8) TIDCO Projects.

As regards the Central Sector, the outlay of Rs. 375 crores, will comprise of the following projects:

(1) Salem Steel Plant — I stage
(2) Second Mine cut at Neyveli (Industrial portion)
(3) Expansion of existing Central Sector Projects
(4) Copper Smelter Project
(5) Heavy Water Plant
(6) Seamless Steel Pipes.

The private sector investment will be in such areas as automobiles and allied industries, metal-based industries, agro-industries such as sugar, textiles, paper and allied projects, cement and allied products, electrical and electronics and chemicals and allied industries.

6. Constraints

However, the industrial development of the State as envisaged by the Tamil Nadu Perspective Plan documents, though laudable, will call for the overcoming of certain constraints. These relate to Water, Power and raw materials. On a rough estimate, 150 million gallons daily may be required for the new industries in Salem, Tuticorin, Coimbatore, Tiruchirapalli, Madras and other industrial complexes. The existing cement units may have to change over to the dry process wherever possible. Efforts should also be made to secure supplies of water and power from adjoining areas. Kerala can help Coimbatore not only by supplying water for drinking but also for industrial purposes. Similar arrangements with Andhra Pradesh, for meeting the needs of industries in and around Madras, North Arcot and Chingleput districts will be highly helpful. Sea water cooling will have to be attempted wherever possible, as it is proposed to be done at Kalpakkam; also, with further research work on desalination, suitable water for industrial purposes would be available from this source in the long run.

Power will be a major constraint to industrial development. Every industry would require sufficient and continuous power to maintain the level of production and any fall in the supply of power will

result in fall in industrial production. This will be very much pronounced in power-intensive industries like caustic soda, aluminium, fertilisers, cement, calcium carbide and other electro-chemicals where power is one of the main raw materials. Even at present, the State is not able to meet the requirements of power fully and has had to resort to power-cuts every year. Hence, it is absolutely necessary that power generation is given the highest priority to sustain industrial growth. It has been estimated that nearly 2,500 m.w. of capacity will have to be created in 1974-79. The industries, major and medium will require about 1,250 m.w. in the Fifth Plan.

In regard to the raw materials, the position has to be improved substantially. There will have to be a systematic approach to the question of augmenting supplies of sugarcane for a near trebling of sugar production, apart from meeting any increase in demand that may take place for Gur and Khandasari.

As regards raw cotton, there is already a deficiency of over 4 lakh bales and this deficit may increase to at least 7 lakh bales in the next 10 years with an expansion of spinning capacity of the textile industry. There will, thus, have to be a trebling of the output of cotton to one million bales.

There will, however, be shortage of wood pulp, staple fibre, rayon yarn and nylon filament yarn. As the efforts for producing rayon-grade pulp have been very successful, it is necessary to initiate a programme of plantation of soft-wood trees for providing the required raw materials. The forest areas in the State are not abundant but the existing land can be suitably exploited with the formulation of a new policy with long-term objectives. Research work also has to be undertaken for determining the suitability of bagasse for manufacture of cellulosic film or other products, with the pulp that could be secured from these raw materials. There will be technological problems but these will not be insuperable. If there is shortage of cellulosic fibre, which is likely, pulp may be got from outside sources ; but the processing plants should be located in the region. Polyester fibre may not be in shortage, but there will have to be a large-sized unit for nylon filament yarn in the petro-chemical complex. Pending local manufacture, supplies will have to be secured from other States or imported. The paper industry will have to depend more on bagasse, and other raw materials particularly mesta.

There is a serious shortage of steel, non-ferrous metals, coal, coke, ferro-manganese and other items. Even with the coming up of the Salem Steel Plant, which will not be before 1978-79, there will be shortage of mild steel. No precise quantification of requirements of steel is possible but having regard to the All India consumption of 25 million tonnes of finished steel in 1983-84, Tamil Nadu alone may need over 2 million tonnes (1983-84) annually for feeding the metal-based industries and meeting the requirements for residential construction, irrigation, power-projects, etc. Dependence in this regard on other States seems necessary ; but with the coming into operation of the Vishakapatnam and Vijayanagar projects, the position may ease in the Sixth Plan.

For the Fifth Plan, the State Government will have to make arrangements with the Centre for securing a sizeable quota of steel besides making its own arrangements for maintaining stocks in raw material banks established in strategic locations. There will be no problem in regard to the availability of iron castings but additional facilities will have to be created for steel and non-ferrous castings. A coke oven battery may be established in

Madras for meeting the requirements of foundries and others. Coal will have to be brought regularly from West Bengal and Orissa and with the coming into existence of the Salem Steel Plant, its consumption may increase to over 3 million tonnes by 1978-79 and 5 million tonnes by 1983-84. Inspite of dieselisation and electrification of railways it may be worthwhile to make alternate arrangements to reduce the dependence on, and strain of, the railway system. The establishment of the Poompuhar Shipping Corporation will go a long way towards improving the transport of coal.

The shortage of non-ferrous metals can be overcome to a certain extent with the establishment of smelters hased on imported concentrates; but the requirements will have to be secured through official agencies on a well-defined basis. As regards cement, adequate limestone deposits exist and there may be a shortage, if at all, only in respect of gypsum. In regard to salt, the supply will be abundant and the scope for the development of salt-based chemicals near the coastal areas is considerable. Packing materials also will have to be secured from outside sources. However, the feasibility of establishing processing units using imported jute cloth may be examined.

A new dimension has been added to the shortage of raw materials through the present oil crisis, which has affected not only industries but also the movement of raw materials. As a chain reaction to the world-wide oil shortage, the basic raw material for plastic industry has become scarce and costly, resulting in grave problems to the packaging industry, in particular. The shortage of furnace oil has created problems in the continuous working of plants depending upon oil. This is a field where some long term solutions have to be found. R & D efforts on the feasibility of adaptation from oil burning to coal burning will help in keeping the industries going on a continuous basis. Likewise, dependence on oil could be cut down if the R & D efforts yield a substitute by way of reliable battery driven vehicles which incidentally will promote battery manufacturing also. This is feasible, but its commercial exploitation still seems to be far off.

All these reveal that our approach to the industrial development will have to lay stress on:

1. Fuller utilisation of the capacity of existing industries;
2. Further development of industries in which we hold a base; for example, Automobile and Auto ancillaries;
3. Diversification of activities of existing industry like Textiles;
4. Fuller development of Agro-industries.

The position of some of these may be examined:

6.1. **Automobile:**

The present share of Tamil Nadu in all-India production is 12.4 per cent in respect of medium-sized commercial vehicles. In anticipation of the growth of demand and the need to create fresh capacity, new facilities will have to be made available for enabling production of 13,000 units by 1978-79 compared with 5,722 units in 1971.

Ashok Leyland is expected to increase its capacity to nearly 10,000 comet units, if not more. The output of light commercial vehicles, will have to be raised three-fold, at least to 3,000 units by the end of the Fifth Plan. The capital outlay on the expansion of existing plants and new schemes may be roughly Rs. 20 crores.

The average annual production of cars in the last ten years in Tamil Nadu works out to 2,894. The present share of the State to all-India production is 11 per cent. The objective should be to reach 15 per cent at the end of the Perspective Plan period. The all-India demand for cars in 1978-79 may be of the order of 75,000 units Hence, Tamil Nadu will have to increase its production to 12,000 units. This can be achieved by (i) allowing Standard Motors to expand their capacity to 8,000 units, and (ii) creating a new unit in Tiruvallur with a capacity of 4,000 cars in the existing Earth Moving Machinery Complex with provision for further expansion.

The maximum annual production so far recorded in the only manufacturing unit of cycles in the State is about 4 lakhs as against the sanctioned capacity of 7 lakhs. On the basis of an estimated all-India demand of 25 lakhs in 1978-79, Tamil Nadu's share, if fixed at 25 per cent, will work out to 7 lakhs. This industry must be given all incentive, first to achieve fuller utilisation of capacity and then to expand its capacity in the Fifth Plan.

The Union Planning Commission estimated that in the last year of the Fourth Five Year Plan, the country would need 90,000 tractors. There are at present six manufacturers, with an installed capacity of 36,000; but in 1970, they produced only 19,890 units. Out of the above, three major manufacturers started manufacturing the item only in 1964-65. The Government of India have issued licences for six more units with a capacity of 35,000 tractors and also Letters of Intent to another 15 manufacturers for a capacity of 1,20,000 units. Tamil Nadu's present share of all-India production is 28.5 per cent and it is difficult for the State to maintain this share especially because of the sanctioning of new units and the issue of Letters of Intent for additional units to be set up in other States. Tamil Nadu could aim at a 15 to 20 per cent share of the all-India production in 1978-79 which may work out to about 15,000 units against a total demand of 75,000 units for the whole country.

The average annual production of motor cycles and scooters in the last 10 years has been estimated at 6,940 units and current production is about 10,500 units and the present share of Tamil Nadu in the all-India output comes to about 13.7 per cent. To maintain the same share, the output will have to be 45,000 units in 1978-79. While the existing unit can expand still further, it is desirable to consider establishment of new units, also in order to meet the anticipated demand.

The average annual value of production of the auto ancillary industries in the last 10 years was of the order of Rs. 35.4 crores. The present share of Tamil Nadu in the all India output is about 30 per cent. Considering the scope for increasing Tamil Nadu's share in the production of cars, commerical vehicles, motor cycles and scooters, it can be reasonably assessed that the output of the auto-ancillaries will have to be around Rs. 70 crores by 1978-79.

In regard to tyres, it can be said that if existing capacity is fully utilised, Tamil Nadu will be able to account for over 16 per cent of all-India production. This share may not be maintained in the coming years if other States in the country put up their own units But, the demand in the country is likely to increase to 10 million sets in 1978-79 and Tamil Nadu can hope to have at least a share of 12½ per cent, in an expanded volume. This will involve a doubling of the output of the State to 1.5

million sets. While the new unit contemplated in Ramanathapuram in the joint sector may have a capacity of 5 lakh sets in the next 5 years, the balance of 10 lakh sets can be met through the expansion of capacity of the existing units.

6.2 Cement:

The production capacity of this industry in India as on 31st August 1970 stood at 19.55 million tonnes annually. The present production capacities of the various factories in Tamil Nadu are as under:

Production Capacity of Cement Factories in Tamil Nadu

Name of the Company	*Location*	*Capacity (In lakhs tonnes)*
India Cements Ltd.	Sankar Nagar (Talaiyuthu)	9.13
	Sankaridrug	6.00
Associated Cement Co.	Madukkarai	3.84
Tamil Nadu Cements	Alangulam	4.00
Dalmia Cements	Dalmiapuram	5.25
Chettinad Cements	Karur	4.00
Madras Cements	Thulukkapatti	1.90
		34.12

In the year 1970, the production of cement in Tamil Nadu was 23.88 lakh tonnes contributing to about 45 per cent of the production in the Southern Region and about 17 per cent of the total production in the country. Against this, the total consumption of cement in the State during 1970 amounted to only 12.15 lakh tonnes, the net per capita consumption being 30.71 kgs against a per capita consumption of 48.03 kgs. in Gujarat, 43.88 kgs. in Punjab and 42.28 kgs. in Haryana and an all-India averge of 24.61 kgs. Thus, it would seem that there is great scope for improvement in the per capita consumption of cement in a developed State like Tamil Nadu.

Although the present output in the State is in excess of the regional consumption, the scale of production is to be improved in view of the fact that the surplus will be required by the deficit states in the country. There has, therefore, to be a conscious effort to create additional capacity by implementing schemes of the existing producers and, if necessary, by establishing new units.

6.3 Textiles

Tamil Nadu is having 24 per cent of the total spinning capacity of the country, as a whole. Every effort should be made to maintain this position. There may of course be competing demands for installing new capacity from other States, and only with intelligent planning and some effort, a share of at least 20 per cent of the expanded spinning capacity can be ensured for Tamil Nadu in 1978-79. Allowing for technological improvements, there will have to be an increase of at least 75 per cent in the spindleage for the

whole country in the next ten years. Hence, an additional 7 million spindles will have to be installed taking the total to nearly 15 million spindles at the end of the Fifth Plan period. About one-fifth of this capacity must be located in Tamil Nadu and the spindleage can be increased to 5.3 millions from the present level of 4.1 millions. There will, thus, have to be a growth in the capacity by 25 per cent in the five year plan period 1974-79. One half of the additional capacity can be brought into being through expansion schemes while about 30 to 40 new units may have to be started in Tamil Nadu for achieving the balance of capacity of 75 million spindles. The Textile Industry will, therefore, play an even more important role in the coming years.

6.4 Sugar

At the all-India level, this industry will have to plan vigorously for increasing production to 65 lakh tonnes by 1978-79. The target of annual production in Tamil Nadu will be 8 lakh tonnes in the Fifth Plan. As there will have to be a virtual doubling of capacity in 1978-79, at least 12 more factories with a capacity of 1,500 to 2,000 tonnes daily per unit will have to be established in Tamil Nadu. I am happy to state that this recommendation of the State Planning Commission has been accepted in principle by the Government.

6.5 Paper

Currently, Tamil Nadu is producing about 42,000 tonnes per annum of finished paper and the industrial units that are contributing to this output are the following :

(i)	Seshasayee paper and Boards Ltd., Pallipalayam.	33,000 tonnes (including 7,000 to 1,000 tonnes of duplex Board)
(ii)	Sun Paper Mills Ltd., Tirunelveli.	5,000 tonnes
(iii)	Venkateswara Paper Mills, Udumalpet.	4,000 tonnes
	Total	42,000 tonnes

In view of the increase in population and rise in the standards of literacy, the demand for different varieties of paper and paper products in the State is sure to go up fast. The likely pattern of demand in the final year of the Fifth Plan period is shown below :

Item	*Demand (consumption) in 1978-79*
Printing and writing paper	40,000 tonnes
Packing and wrapping paper	20,000 tonnes
Paper Boards (Duplex, Tripled and Pulp Boards)	23,000 tonnes
Total	83,000 tonnes

New sources of raw material such as mesta will have to be explored.

6.6 New Industries

Regarding new industries, as the Task Force Report has rightly pointed out, there is good prospect for the development of Rice Mill Industry if area registration, as in Sugar Mills, is adopted. Fuller utilisation of the by-products of rice can be achieved through the starting of industries for manufacturing rice bran oil, carbon Black from Paddy husk and Jin from broken rice. Jute can be developed as a commercial crop in Thanjavur district and the Jute Mill Industry can be developed in a big way.* Regarding metal based industries, we have to avoid industries which involve the use of minerals not locally available. Steel sections may be got from other States for making steel goods. Also, stress

* Task Force Report on Large Industries, Tamil Nadu Planning Commission.

on power-intensive industries such as electro-chemicals will have to be postponed. In other words, the industries of the Fifth Plan should not be oriented to heavy dependence on natural resources or power. If these factors are borne in mind, the prospects for the Fifth Plan are very bright.

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Summary of Discussion

In the discussion of the paper at the Seminar held in the seminar room of the Institute on Thursday 25th July, 1974, under the Chairmanship of Mr. C. S. Mahadevan, formerly Secretary to the Task Force on Large Industries, State Planning Commission, the Chairman described the paper as thought provoking in the emphasis it laid on the changes needful in the Fifth Plan approach to industrial development in Tamil Nadu. On analysis, the growth of Industries during the planning era, revealed that financial outlays in the third to fourth and fourth to fifth plans have doubled, but there have been shortfalls in the achievements of targets and the envisaged growth rate has not been realised. The existing constraints of scarcity of water and power and shortages of essential items such as coal and steel have been aggravated by the oil crisis with its widespread repercussions. In view of the existing constraints, the approach should be to concentrate on areas in which there is an advantage. The State has a resource base in sugar, cement, textiles and paper and a well developed automobile industry with its ancillaries. In this connection a census of Industrial production and utilisation studies would be useful. There is no reliable census of large industries although such information is available for the small scale sector.

The author in his exposé drew attention to the concepts and approaches to be adopted in the Fifth Plan against the background of post-independence industrial development in the Country and the State. The history of economic development and civilization can be described as consisting of three eras, namely about 7,000 years of agricultural development, two and half centuries of industrial growth and the recent information era and electronic technology. The industrially advanced countries are in the third era, while India entered the second era after independence. Economic growth depends on the utilisation in varying proportions, according to the state of development, of four major inputs, natural resources, population, economic organisation and invention. During the four Five Year Plans, India's industrial growth has been in four stages. The export of raw materials and import of finished products was followed by the import of machinery and tools for manufacture of consumer goods. The next step forward was the import of technology and know-how for the manufacture of machine tools under a variety of collaboration agreements. The country is now at the final stage of the development of indigenous know how and technology, for which a pre-requisite is a strong R & D base encouraging invention and innova-

tion. A notable feature has been the creation of a strong and expanding Public Sector and organisation of a trained managerial class. In Tamil Nadu, prior to independence, the existing industries consisted of sugar, cement, and textiles. The First Plan saw the development of multi-purpose irrigation and power projects; while in the Second Plan emphasis was on organisation of infrastructure. The Third Plan witnessed the advance of Tamil Nadu to the third rank amongst the industrialised States in the country. The special feature of the Fourth Plan was the continuance of the industrial expansion and spatial dispersal of industries designed to develop backward areas. The Fifth Plan begins with three major trends in Tamil Nadu. First the State has entered the Public Sector on a wide scale with a number of projects; second the introduction of the Joint Sector with its prospect of efficient co-operation with the Private Sector and third the encouragement given to the Private Sector through the systematic sponsoring of Enterpreneurship and through well planned State aid, financial and technical, to nascent industrialists. The momentum provided by the pragmatic and far-sighted policies of the State Government plays a considerable role in development of industry. The emphasis in the State Fifth Plan must rest on the promotion of agro-industries, expansion of and fuller utilisation of existing industrial capacities. The major constraints Tamil Nadu faces are near exhaustion of water resources, power shortfalls and scarcity of natural resources. These have to be met by a careful ulilisation of ground water, exploration of power alternatives and resources surveys. Moreover, a special effort must be made to develop manpower resources in the State, which are of excellent calibre. The Task Force Report on Education stresses the importance of manpower development. But no serious attention seems to have been paid as yet to the recommendation.

The discussion queried the feasibility of generating the projected 2,500 MW of power in the Fifth Plan, and the irrigation expansion envisaged in view of the stringent constraints. In this connection scepticism was expressed regarding the timely development of nuclear power due to Canada's hardening attitude. The alternatives of desalinisation of sea water and a possible national watergrid were both considered expensive and difficult. There was general concurrence that the role of invention and innovation in industrial development was not fully realised at State and National levels. The instance of Japan with 90 per cent of its economic growth traceable to innovation and 10 per cent to capital was referred to. The low share of the Public Sector Enterprises in Capital formation was commented upon. In this context, it was pointed out that India's taxes are only 10 per cent of its GNP while in the Soviet Union and China it is 30 per cent and in other developed countries it ranges from 15 to 20 per cent. Peace on the labour front is an important condition for industrial development. Labour strikes were conspicuous on the industrial scene and a deterrent to progress. It was pointed out that development of agro-industries might result in diversion of lands under food crops and also create problems of water allocation if both crops, for instance sugarcane and paddy, are water intensive. An opinion was expressed that production targets of specific items in Tamil Nadu need not be dominated by an effort to maintain percentages of national output.

It was generally accepted that the constraints on water and power did not lend themselves to an easy solution. A national water and power grid would be to the advantage of Tamil Nadu. The power

position could be materially bettered if generation was improved in existing units and a determined effort is made to check transmission losses. Nuclear power should not be ruled out even if there were delays. Regarding water, it is an essential resource and even expensive methods like desalinisation should not be overlooked. Manpower development and a science and technology policy encouraging innovation and invention are pre-requisites for industrial expansion. Another essei tial condition is industrial peace. Dive: sion of land to cash crops could be offse by increased productivity in food crop: supported by intensive water managemen and crop research. A system of area regis tration of food crops could also be fol lowed. Institutional changes such as th introduction of the Joint Sector indicated a constructive approch to industrial development in Tamil Nadu.

SOME NOTES ON AGRICULTURE IN THE FIFTH PLAN *

The Fourth Plan Record.

Our Fourth Plan achievements in agriculture present a mixed picture. Against the food grains production target of 127 million tonnes, the Draft Fifth Plan projects an achievement of 114 million tonnes. the Economic Survey for 1973-74 and the 1974-75 Annual Plan document refer to a production of 110 million tonnes, while the actual might be nearer 100 million tonnes, as our current wheat purchase in the U.S., Canada and Australia indicate. The Cotton production target was 8 million bales and achievement was 6.5 million bales, the jute target was 7.4 million bales and achievement was 5-6 million bales, the sugarcane target and 13.4 achievement were 15 million tonnes and 13.4 million tonnes and in the case of oil seeds 10.5 million tonnes and 9.5 million tonnes respectively.

The animal husbandry and dairy picture is better at the low levels of milk, meat and egg consumption of the country, with their being out of the reach of the poor majority. Fisheries production at over 22 lakh tonnes in 1973-74 was around 2 lakh tonnes short of the target but there were major shortfalls in inland fisheries, which have social significance. In the forestry area, the over achievements of the targets have been at the cost of denudation of the forest wealth of the country.

Thus we ended the Fourth Plan with a rather serious reduction in food grains production and therefore of consumption of the weaker section of the population. This group needs a minimum of 12 million tonnes per annum and an adequate minimum of 20 million tonnes. Never during the Fourth Plan did the total amount of food grains which passed through the public distribution system exceed 9 million tonnes in a year.

The reasons for this poor performance of the agricultural system in the Fourth Plan can be traced to structural, technical and administrative factors. The structural causes relate to the strong position of large farmers in their access to HYV seeds, fertilisers and irrigation [1] and their ability to hold back their production, force supply short falls and rising prices as witnessed during the last rabi and current kharif season. The technical factors that operated were the shortage of fertilisers, (against a 1973-74 NPK target of 55 lakh tonnes, only 30 lakh tonnes were available), poor quality of seeds, particularly that available to the small farmer and the lag in research. The administrative hold up was lack of

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* Paper submitted by Dr. Malcolm S. Adiseshaih to the Conference in Agriculture in the Fifth Plan, Conference of the Indian School of Social Sciences, at Bombay May 22-26.

1. NCAER's All India Household Survey of Income, Savings and Consumer Expenditure for 1967-68 (published in 1972), states : "It is difficult to spell out the specific reasons for this change in income concentrations between the rural and urban sectors in this span of 6-7 years. This may, perhaps be due, in part, to the fact that in the initial stages of the new agricultural strategy (popularly known as the green revolution), the richer farmers had relatively more advantage of various inputs like fertilisers, improved seeds, controlled water through pumpsets, etc., as a result of which they perhaps earned relatively large incomes. Further the rural household sector is practically out of the income tax net" (page 26).

of co-ordination between the government departments involved in food grains production and distribution, between the departments of Agriculture and Agricultural Universities, the inadequate extension network, corruption in co-operatives and the regulated marketing outlets, giving the money lender cum wholesaler, and the landlord cum buyer a dominant position.

The Fifth Plan Prospects

The target for food grains production for the Fifth Plan of 140 million tonnes against a production base (1973-74) year, production of around 100 million tonnes seems rather formidable but should be maintained and can be realised if the agricultural strategy is restructured. First it is not the total quantum of production that is important but who produces it, how it is distributed and what is produced. If the aim is simply to maximise production, given the necessary inputs the entire target can be achieved by just four States – Punjab, Haryana, Tamil Nadu and Andhra Pradesh. Production of the targetted food grains should be by the farmer owning and cultivating the average 3 hectares which the 15 standard acres of the land ceiling indicates. He should be provided with the necessary inputs of seeds, fertilisers, pesticides and irrigation. For this, the necessary agrarian reform legislation, ceilings, distribution of surplus lands, security of tenancies, fair rents, consolidation of fragmented holdings, wage regulation for agricultural workers – is on the books or planned. Only they are not being executed. They should be and this is the starting point.

Second as the farmer will react to the prevalent prices, the policy with regard to agricultural prices needs to be defined as part of a national income prices policy as to cover his costs including amortization of his debt and credit and to give him the surplus for meeting his essential needs and that of his familv for housing, clothing education, health, recreation and food plus his continuing investment. To ensure that the farmer gets the prices so established, there should be no middleman between him and the consumer. This was the purpose of the takeover of the wholesale trade in wheat and with an adequate network of state purchasing agents, this purpose of the farmer benefitting from the price can be ensured. With the necessary preparation, this system of wholesale trade take over of all good grains is the second imperative.

Third the proper distribution of food grains so produced is an essential part of the strategy. A minimum of 12 million tonnes should be procured and distributed through fair price shops. Further the escalating gap between the procurement and issue prices should be narrowed and in fact eliminated.

Fourth the content of the basket of food production – what is produced – is equally important. The food grains basket comprises cereals and non cereals items of decisive significance- On the cereals side, apart from wheat, rice and coarse grains the socially important crop is pulses, which is essential for the balanced diet of the poor majority. Here the production target of 14 million tonnes is inadequate to meet the needs of the people. But in relation to the two factors which govern the prospects, the production target is realistic. The first is the low base of pulse production of the last year of the Fourth Plan which was around 10 million tonnes from which the Fifth Plan starts. A 40 per cent increase over that base is probably as far as the production can be pushed. The second element is the limited demand for pulses given the wide ranging income inequality in the economy. The pulses demand

increases in absolute terms as income increases, but declines in percentage terms with increased income. As the majority of the people are poor, with disposable per capita incomes below Rs. 40 per mensem, their average expenditure on pulses is less than Rs. 5 per month, On the other element in the food basket of this group, meat, fish and eggs, the monthly expenditure is even less at Rs. 3.[2] From this point of view, even the production targets set for the Fifth Plan for milk to increase from a little over 23 million tonnes to around 29 million tonnes and increase egg production from 7.7 billions to 12.4 billions are unrealisable, unless there is an increase in the incomes of 3 lowest deciles of the population. The Draft Fifth Plan assumes that there will be such a transfer of resources from the rich to the poor, when it states that "as the demand for milk, eggs and meat is income elastic, a high rate of growth of these commodities will be required in the coming years."[3] In other words the success of the agricultural production strategy is dependent on the strategy to increase the disposable income of the poor majority of the country. Such an increase can be attained not only by income transfers, but also by restructuring the mode of production. If the additional meat, egg and milk are produced not by large farmers but by the small farmers, marginal farmers and agricultural labourers agencies and co-operatives then there will be an increase in their disposable income.

Finally the cash crops production strategy and targets—cotton, oilseeds, jute, sugarcane, tobacco, coffee and tea—have to be reviewed in light of the growing weakness of the small producers and small planters in this group of products, the need to establish a closer relation between the price of the end product and the price of the crop in question and the pressure to cut back and perhaps ration domestic consumption in certain commodities and tea, coffee, cashew in order to increase their exports and earn additional foreign exchange to relieve the pressure on the balance of payments that the Fifth Plan faces.

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2 Ibid. pages 70 etal.

3 Draft Fifth Plan 1974-79—Vol. II-page 29.

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